JOURNAL OF THE Mississippi STATE MEDICAL ASSOCIATION

JANUARY 1962

NATIONAL LIBRARY OF MEDICINE JAN 9 1962

INDEX MEDICUS

a look at the literature

CORDRAN™
(flurandrenolone, Lilly)

"an excellent drug

Based both on laboratory studies and clinical impressions, it [Cordran] appears to be an excellent drug for the relief of cutaneous inflammation, possibly more effective than any steroid we have hitherto used."

—Rostenberg, A., Jr.: Clinical Evaluation of Flurandrenolone, a New Steroid, in Dermatological Practice, J. New Drugs, 1:118, 1961.

Description: Cordran cream and ointment contain 0.5 mg. Cordran per Gm. Cordran™-N cream and ointment contain 0.5 mg. Cordran and 5 mg. neomycin sulfate per Gm.

Lilly

Cordran™-N (flurandrenolone with neomycin sulfate, Lilly)

Product brochure available; write Eli Lilly and Company, Indianapolis 6, Indiana.

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature.

240209

This Month . . . History of Clarksdale Society, Surgical Treatment of Carotid Insufficiency, Breast Cancer, Traumatic Corneal Ulcers

M.S.M.A

WI
MI835
V. 3 no.1-6
1962
c.1

when urinary tract infections present a therapeutic challenge...

CHLOROMYCETIN®

(chloramphenicol, Parke-Davis)

Often recurrent...often resistant to treatment, urinary tract infections are among the most frequent and troublesome types of infections seen in clinical practice.[1,2] In such infections, successful therapy is usually dependent on identification and susceptibility testing of invading organisms, administration of appropriate antibacterial agents, and correction of obstruction or other underlying pathology.

Of these agents, one author reports: "Chloramphenicol still has the widest and most effective activity range against infections of the urinary tract. It is particularly useful against the coliform group, certain Proteus species, the micrococci and the enterococci."[1] CHLOROMYCETIN is of particular value in the management of urinary tract infections caused by *Escherichia coli* and *Aerobacter aerogenes*.[3] In addition to these clinical findings, the wide antibacterial range of CHLOROMYCETIN continues to be confirmed by recent *in vitro* studies.[4-6]

CHLOROMYCETIN (chloramphenicol, Parke-Davis) is available in various forms, including Kapseals® of 250 mg., in bottles of 16 and 100. See package insert for details of administration and dosage.

Warning: Serious and even fatal blood dyscrasias (aplastic anemia, hypoplastic anemia, thrombocytopenia, granulocytopenia) are known to occur after the administration of chloramphenicol. Blood dyscrasias have occurred after both short-term and prolonged therapy with this drug. Bearing in mind the possibility that such reactions may occur, chloramphenicol should be used only for serious infections caused by organisms which are susceptible to its antibacterial effects. Chloramphenicol should not be used when other less potentially dangerous agents will be effective, or in the treatment of trivial infections, such as colds, influenza, or viral infections of the throat, or as a prophylactic agent. *Precautions:* It is essential that adequate blood studies be made during treatment with the drug. While blood studies may detect early peripheral blood changes, such as leukopenia or granulocytopenia, before they become irreversible, such studies cannot be relied upon to detect bone marrow depression prior to development of aplastic anemia.

References: (1) Malone, F. J., Jr.: *Mil. Med.* **125**:836, 1960. (2) Martin, W. J.; Nichols, D. R., & Cook, E. N.: *Proc. Staff Meet. Mayo Clin.* **34**:187, 1959. (3) Ullman, A.: *Delaware M. J.* **32**:97, 1960. (4) Petersdorf, R. G.; Hook, E. W.; Curtin, J. A., & Grossberg, S. E.: *Bull. Johns Hopkins Hosp.* **108**:48, 1961. (5) Jolliff, C. R.; Engelhard, W. E.; Ohlsen, J. R.; Heidrick, P. J., & Cain, J. A.: *Antibiotics & Chemother.* **10**: 694, 1960. (6) Lind, H. E.: *Am. J. Proctol.* **11**:392, 1960.

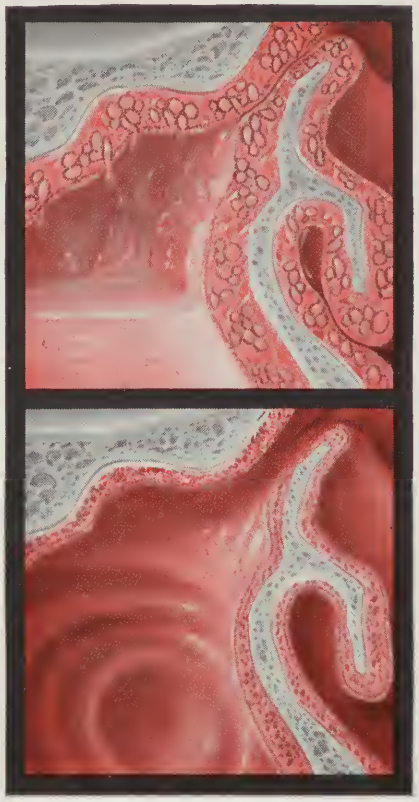
68951

PARKE-DAVIS

PARKE, DAVIS & COMPANY, Detroit 32, Michigan



In colds and sinusitis unsurpassed in providing drainage space without chemical harm



The clogged sinus
In sinusitis, the mucous membrane becomes hyperemic and edematous, lymph glands and goblet cells hyperactive. Ostium is closed by edema and secretions cannot drain freely.

The normal sinus
Magnified anatomy of a portion of maxillary sinus showing mucous membrane with cilia and lymph glands. Ostium is normal and patent.

NEO-SYNEPHRINE®

brand of phenylephrine hydrochloride hydrochloride

NASAL SPRAYS AND SOLUTIONS

When there is nasal turgescence, tiny orifices of sinus ostia tend to clog. Neo-Synephrine nasal solutions and sprays reduce edematous tissues on contact to provide prompt relief. As turbinates shrink, obstructed sinus ostia open, drainage and breathing become freer and the boggy feeling of a cold disappears.

Delicate respiratory tissue and its natural defenses are not harmed by exceptionally bland Neo-Synephrine; systemic effects are nil; it does not sting. For years it has been recommended for prevention and treatment of sinusitis.[1-3] Repeated applications do not lessen effectiveness.

Available in plastic nasal sprays for adults (½%) and children (¼%), in dropper bottles of ⅛, ¼ or 1 per cent.

1. Grant, L. E.: Coryza and nasal sinus infections, **Clin. Med. & Surg.** 42:121, March, 1935. 2. Putney, F. J.: Sinus infection, in Conn, H. F. (Ed.): Current Therapy 1952, Philadelphia, W. B. Saunders Company, 1952, p. 110. 3. Simonton, K. M.: Current treatment of sinusitis, **Journal-Lancet** 79:535, Dec., 1959.

Winthrop LABORATORIES
New York 18, N.Y.

Volume III
Number 1
January 1962

JOURNAL of the Mississippi STATE MEDICAL ASSOCIATION

• EDITOR
WILLIAM M. DABNEY, M.D.

• ASSOCIATE EDITORS
DEWITT W. HAMRICK, M.D.
GEORGE H. MARTIN, M.D.

• MANAGING EDITOR
ROWLAND B. KENNEDY

• EDITORIAL ASSISTANT
BETTY M. SADLER

• PUBLICATIONS COMMITTEE
LAWRENCE W. LONG, M.D.
Chairman
B. B. O'MARA, M.D.
WILLIAM E. LOTTERHOS, M.D.
and the Editors

• THE ASSOCIATION
LAWRENCE W. LONG, M.D.
President
C. P. CRENSHAW, M.D.
President-elect
C. G. SUTHERLAND, M.D.
Secretary-Treasurer
B. B. O'MARA, M.D.
Speaker
HOWARD A. NELSON, M.D.
Vice Speaker
ROWLAND B. KENNEDY
Executive Secretary
CHARLES L. MATHEWS
Assistant Executive Secretary

The JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION is owned and published by the Mississippi State Medical Association, founded 1856. Editorial, executive, and business offices, 735 Riverside Drive, Jackson, Mississippi; office of publication, 1201-5 Bluff Street, Fulton, Missouri. Subscription rate, $5 per annum; $1 per copy, as available. Advertising rates furnished on request. Second-class postage paid at the post office at Fulton, Missouri.

CONTENTS

ORIGINAL PAPERS

Surgical Treatment of Carotid Insufficiency 1 FRANCIS MURPHEY, M.D.

Management of Breast Carcinoma 6 BERNARD T. HICKMAN, M.D.

Present Status of Viruses in Clinical Medicine and Public Health 9 Ralph B. HOGAN, M.D., and GERALD R. COOPER, M.D.

Traumatic Corneal Ulcers 13 THOMAS W. WESSON, M.D.

SPECIAL FEATURES

A History of the Clarksdale and Six Counties Medical Society: 1902-1960 18 ROBERT RAY MCGEE, M.D.

CPC XXIV 25 University of Mississippi

EDITORIALS

Volume III, Number 1 33 JMSMA's Birthday

Our Doctor Population—Too Big or Too Little? 34 A New View

Colorado: Top Leader in American Medicine 35 Bold, New Program

THIS MONTH

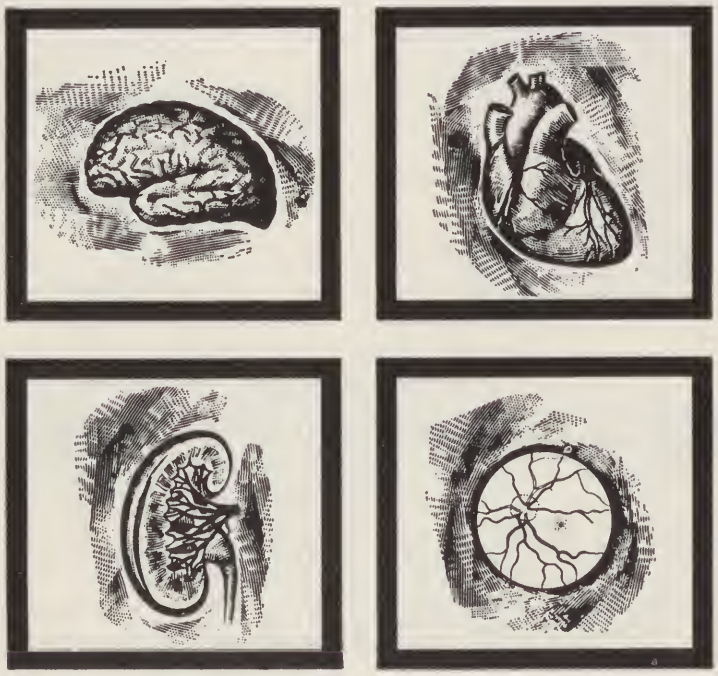
The President Speaking 32 'Every Doctor's Business'

The Literature 37 Domestic Journals

Medical Organization 39 Around the State

Copyright 1961, Mississippi State Medical Association

4 essential actions in one Rx: to bring most hypertensive patients under control



• **central action** inhibits sympathetic vasoconstrictor impulses, improves cerebral vascular tone

• **renal action** increases renal blood flow as well as urine volume and sodium and chloride excretion

• **cardiac action** prolongs diastole, decreases heart rate and cardiac output, thus easing strain on the myocardium

• **vascular action** blocks effects of pressor substances, enables blood vessels to dilate more fully

Supplied: SER-AP-ES Tablets (salmon pink), each containing 0.1 mg. Serpasil, 25 mg. Apresoline hydrochloride, and 15 mg. Esidrix.

For complete information about Ser-Ap-Es (including dosage, cautions, and side effects), see current Physicians' Desk Reference or write CIBA, Summit, New Jersey.

SERPASIL® (reserpine CIBA)
APRESOLINE® hydrochloride (hydralazine hydrochloride CIBA)
ESIDRIX® (hydrochlorothiazide CIBA) 2/3002MB

Most hypertensive patients need more than one drug...but most hypertensive patients need only one Rx: SER-AP-ES®

CIBA Summit, New Jersey

END BATTERY REPLACEMENTS
Newest Welch Allyn

RECHARGEABLE HANDLE

Fits all WA

medium-handle set cases



- Provides satisfactory illumination longer between charges than standard medium batteries.
- No separate charger.
- Cannot overcharge.
- May be recharged thousands of times.
- Will never corrode.
- Fits all WA instruments.

No. 717 Rechargeable battery handle $20.00
No 717-B Extra bottom section 14.50

Also available as part of combination sets.

KAY SURGICAL, Inc
663 NORTH STATE STREET
JACKSON, MISS., FL 2-4043



Protection Against Loss of Income From Accident and Sickness as Well as Hospital Expense Benefits for You and All Your Eligible Dependents.

ALL PREMIUMS COME FROM
PHYSICIANS SURGEONS DENTISTS
ALL BENEFITS GO TO

PHYSICIANS CASUALTY & HEALTH ASSOCIATIONS
OMAHA 31, NEBRASKA
Since 1902

Handsome Professional Appointment Book sent to you FREE upon request.



Think Clean!

Detergent, mucolytic, antibacterial, penetrating... qualities that establish Trichotine as a leading vaginal cleanser—both as a therapeutic measure unto itself, and as a cleansing adjunct to therapy.[1-3] A detergent, Trichotine penetrates the rugal folds, removes mucus debris, vaginal discharge, and cervical plugs.[1-4] Surface tension is 33 dynes/cm. (vinegar is 72 dynes/cm.). Trichotine relieves itching and burning—is virtually non-irritating—leaves your patient feeling clean and refreshed. It establishes and maintains a normal, healthy vaginal mucosa in routine vaginal cleansing, as well as in therapy. Whenever you think of a vaginal irrigant, think of the detergent cleansing action of Trichotine.

detergent action
for vaginal irrigation **Trichotine®**
POWDER

ACTIVE INGREDIENTS: Sodium lauryl sulfate, sodium perborate, sodium borate, thymol, eucalyptol, menthol, methyl salicylate. AVAILABLE: In jars of 5, 12 and 20 oz. powder. REFERENCES: 1. Stepto, R. C., and Guinant, D.: J. Nat. M.A. 53:234, 1961. 2. Karnaky, K. J.: Medical Record and Annals 46:296, 1952. 3. Folsome, C. E.: Personal Communication. 4. MacDonald, E. M., and Tatum, A. L.: J. Immunology 59:301, 1948.

THE FESLER COMPANY, INC., KENILWORTH, NEW JERSEY

MEETINGS

NATIONAL AND REGIONAL

American Medical Association, June 24-28, 1962, Chicago, Ill. F. J. L. Blasingame, Executive Vice President, 535 N. Dearborn St., Chicago 10, Ill.

American Academy of General Practice, April 6-13, 1962, Las Vegas, Nev. Mr. Mac F. Cahal, Executive Director, Volker Blvd., at Brookside, Kansas City 12, Mo.

Mid-South Postgraduate Medical Assembly, Feb. 13-16, 1962, Memphis, Tenn. Leslie H. Adams, Executive Director, 774 Adams Ave., Memphis 5, Tenn.

STATE AND LOCAL

Mississippi State Medical Association, May 8-10, 1962, Jackson. Mr. Rowland B. Kennedy, Executive Secretary, 735 Riverside Drive, Jackson.

Amite-Wilkinson Counties Medical Society, First Tuesday March, June, September, December. S. E. Field, Centreville, Secretary.

Central Medical Society, First Tuesday Monthly, 6:30 p.m., Robert E. Lee Hotel, Jackson. George E. Gillespie, 514-A East Woodrow Wilson Drive, Jackson, Secretary.

Claiborne County Medical Society. D. M. Segrest, Port Gibson, Secretary.

Clarksdale and Six Counties Medical Society, Second Wednesday March and November, 2:00 p.m., Clarksdale. Robert R. McGee, 150 Yazoo Ave., Clarksdale, Secretary.

Coast Counties Medical Society, First Wednesday March, June, September, and November. Charles N. Floyd, 1412-23rd Ave., Gulfport, Secretary.

Delta Medical Society, Second Wednesday April and October. Howard A. Nelson, 308 Fulton St., Greenwood, Secretary.

DeSoto County Medical Society, Second Thursday January, April, July, and October, 1:00 p.m., Hernando Motel Cafe, Hernando. L. L. Minor, Route 9, Memphis 9, Tenn., Secretary.

East Mississippi Medical Society, First Tuesday February, April, June, August, October, and December. A. Wayne Sullivan, 1204-21st Ave., Meridian, Secretary.

Homochitto Valley Medical Society, Fourth Tuesday Monthly, 7:30 p.m., Natchez Country Club, Natchez. W. T. Colbert, Natchez General Hospital, Natchez, Secretary.

North Central District Medical Society, Second Wednesday March and September. W. A. Middleton, 214 Summit St., Winona, Secretary.

Northeast Mississippi Medical Society, Second Tuesday March, June, September, and December, Tupelo. Thomas W. Wesson, 421 Main St., Tupelo, Secretary.

North Mississippi Medical Society, First Thursday January, April, and October, Oxford. R. L. Wyatt, Holly Springs, Secretary.

Pearl River County Medical Society, Second Monday March, June, September, and December. Samuel O. Massey, Jr., 220 E. Canal St., Picayune, Secretary.

South Mississippi Medical Society, Second Thursday March, June, September, and December. Thomas F. Puckett, 715 Arledge St., Hattiesburg, Secretary.

Tri-County Medical Society, Second Tuesday March, June, September, and December. A. V. Beacham, Magnolia, Secretary.

West Mississippi Medical Society, Second Tuesday January, April, July, and October, 7:00 p.m., Old Southern Tea Room, Vicksburg. Tom H. Mitchell, The Street Clinic, Vicksburg, Secretary.

Rx . . . THERAPY FOR RETIREMENT

An easy-to-take prescription to insure retirement security . . . a regular savings plan. Savings placed at First Federal of Jackson are protected by high reserves, the highest type insurance of accounts and conservative management policies.

These safeguards, plus high dividends, assure financial security when a regular savings plan is followed. Start now to prepare for retirement years. The chart below, based on 4% dividend, compounded semi-annually, illustrates how easy it is.

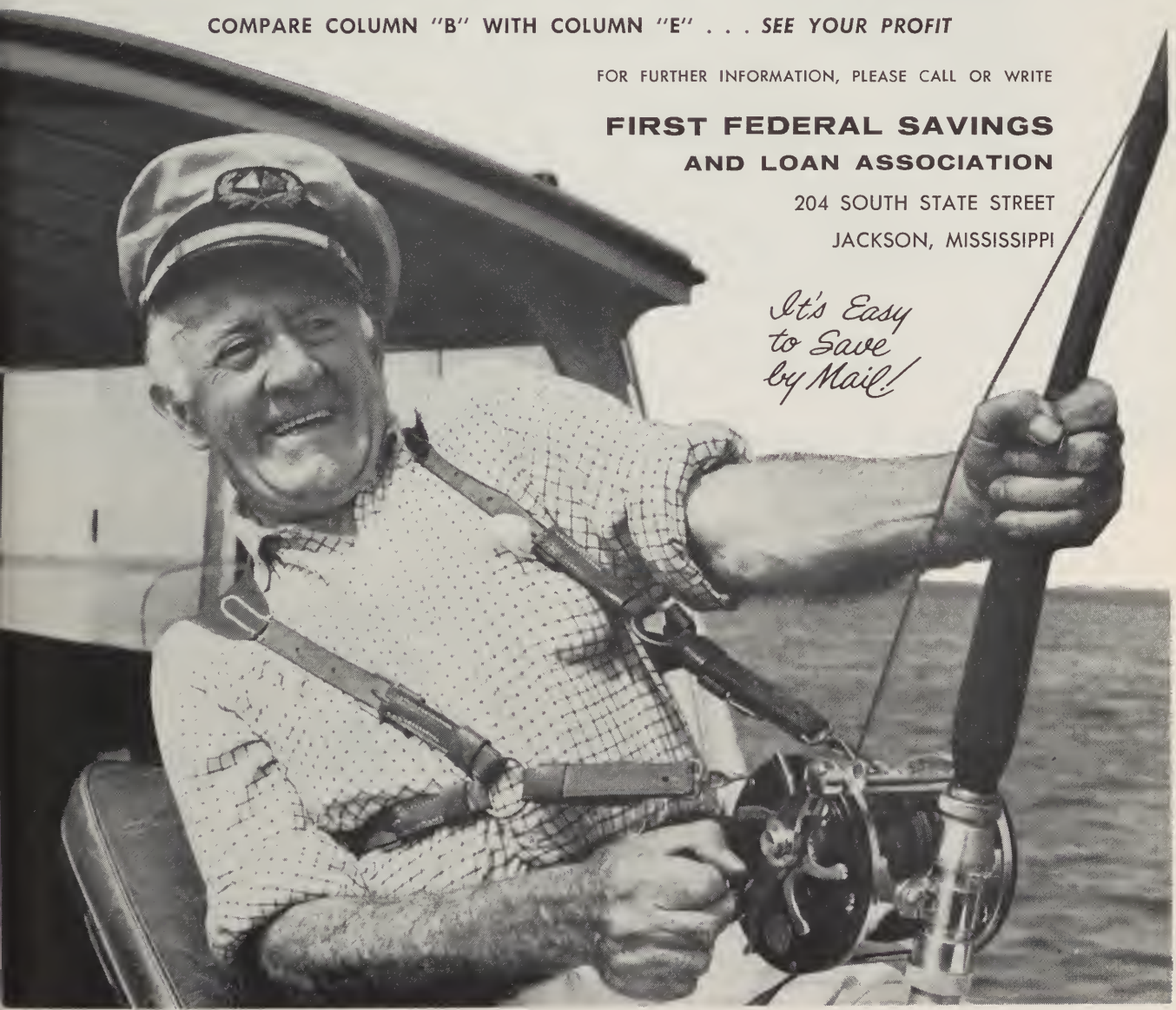
A	B	C	D	E
Amount you sove eoch month for first 20 years	Actuol omount saved by you for 20 yeors	Totol sovings with dividends for 20 yeors	You withdrow monthly for next 20 years	Total withdrowals during second 20 yeors
$ 30	$ 7,200	$10,999.20	$ 65.69	$15,765.60
50	12,000	18,332.00	109.49	26,277.60
70	16,800	25,664.80	153.29	36,789.60
90	21,600	32,997.60	197.09	47,031.60
100	24,000	36,664.00	218.99	52,557.60

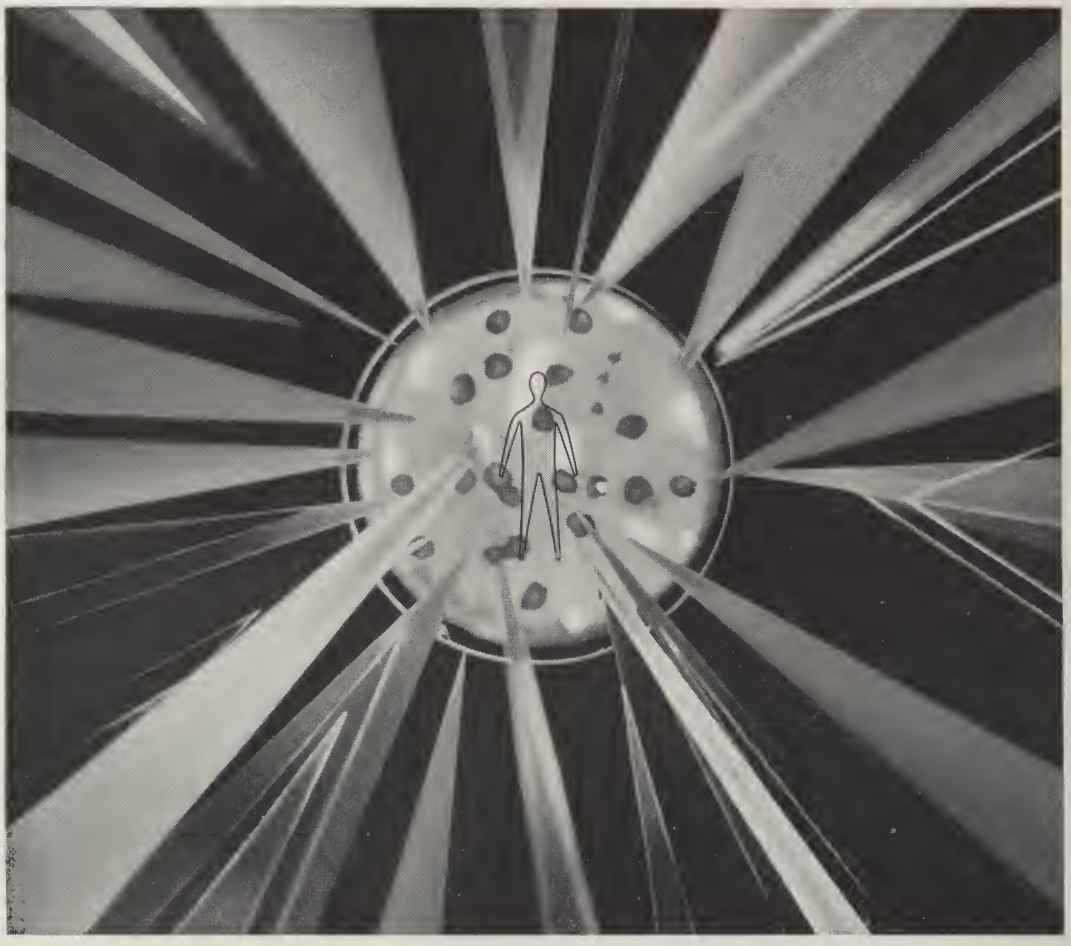
COMPARE COLUMN "B" WITH COLUMN "E" . . . *SEE YOUR PROFIT*

FOR FURTHER INFORMATION, PLEASE CALL OR WRITE

FIRST FEDERAL SAVINGS
AND LOAN ASSOCIATION
204 SOUTH STATE STREET
JACKSON, MISSISSIPPI

It's Easy to Save by Mail!





Why do we say Mysteclin-F is decisive in infection?

because... it contains phosphate-potentiated tetracycline
for prompt, dependable broad spectrum antibacterial action.

because... it contains Fungizone, the antifungal antibiotic,
to prevent monilial overgrowth in the gastrointestinal tract.

Mysteclin-F resolves many respiratory, genitourinary and gastrointestinal infections—as well as such other conditions as cellulitis, bacterial endocarditis, furunculosis, otitis media, peritonitis, and septicemia. It combats a truly wide range of pathogenic organisms: gram-positive and gram-negative bacteria, spirochetes, rickettsias, viruses of the psittacosis-lymphogranuloma-trachoma group.

Available as: Mysteclin-F Capsules (250 mg./50 mg.) Mysteclin-F Half Strength Capsules (125 mg./25 mg.) Mysteclin-F for Syrup (125 mg./25 mg. per 5 cc.) Mysteclin-F for Aqueous Drops (100 mg./20 mg. per cc.)
'Mysteclin'®, 'Sumycin'® and 'Fungizone'® are Squibb trademarks.

Mysteclin-F

For full information, see your Squibb Product Reference or Product Brief.

SQUIBB *Squibb Quality— the Priceless Ingredient*

Squibb Phosphate-Potentiated Tetracycline (SUMYCIN) *plus* Amphotericin B (FUNGIZONE)



Even if you prescribed a year's supply

the last Optilets® Filmtab® would still be good

Actually, doctor, labeled potency will last a much longer time. While we would never recommend by-the-year dosage of a therapeutic nutritional, this does illustrate the unusual stability of Optilets.

The reason, of course, is Filmtab coating. Unlike previous sugar coatings, no water is needed for application. This virtually eliminates chances of moisture degradation.

Greater stability, however, is just one of Optilets advantages. Without sugar's bulk, we can make tablets up to 30% smaller in size. Coatings are less brittle, and tablets less apt to chip or break. As Filmtab coatings are no more than paper-thin, nutrients are more readily available. Yet, patients are protected from vitamin odors and after-tastes.

While stability is important and easy administration an advantage, ingredients are, of course, the main criteria for any nutritional. Please check the Optilets formulas, doctor. We think you'll find them a good choice for your patients.

ABBOTT LABORATORIES NORTH CHICAGO, ILLINOIS

Optilets

Each Filmtab represents:

Vitamin A	7.5 mg. (25,000 units)
Vitamin D	25 mcg. (1000 units)
Thiamine Hydrochloride	10 mg.
Riboflavin	5 mg.
Nicotinamide	100 mg.
Pyridoxine Hydrochloride	5 mg.
Cobalamin (Vitamin B_{12})	6 mcg.
Calcium Pantothenate	20 mg.
Ascorbic Acid	200 mg.

Optilets-M®

Each Filmtab represents all the vitamins of Optilets plus the following:

Iron (as sulfate)	10 mg.
Copper (as sulfate)	1 mg.
Iodine (as calcium iodate)	0.15 mg.
Cobalt (as sulfate)	0.1 mg.
Manganese (as sulfate)	1 mg.
Magnesium (as oxide)	5 mg.
Zinc (as sulfate)	1.5 mg.
Molybdenum (as sodium molybdate)	0.2 mg.

M AB—FILM-SEA ABLETS ABB 201071



Her position on nutrition
Is taught in all the schools.
She's an oracle for others,
Yet, the first to break the rules.
While a mine of diet knowledge
(And, each lecture is a gem)
Poor Ramona from Pomona needs
some DAYALETS with M.

Likes, dislikes, and time schedules never interfere with her lectures, doctor, just her diet. She could live in a grocery store and still eat poorly. While Dayalets-M can't replace self-discipline, it can help insure optimal nutrition. Tablets are tiny, potent, and Filmtab-coated. Patients like taking them.



Filmtab® DAYALETS-M®...*essential vitamins plus 8 minerals in the most compact tablet of its kind*

ABBOTT

112070 Filmtab—Film-sealed tablets, Abbott



VISION

A man must see ahead to the harvest to gain energy for today's labor of planting

In Blue Cross-Blue Shield, Mississippi doctors have a sure way to meet radical challenges to the voluntary financing of hospital and medical care—and to voluntary medicine itself. Only the foresight and energetic action of all doctors, coupled with the continued co-operation of hospital leaders, can expand the effectiveness of Blue Cross-Blue Shield here in Mississippi. The future of medicine and Blue Cross-Blue Shield may well rest upon the wisdom of your decisions and your willingness to act. Let the record show that Mississippi doctors stood fast to preserve our voluntary health care for future generations.

MISSISSIPPI

BLUE CROSS
BLUE SHIELD

MISSISSIPPI HOSPITAL & MEDICAL SERVICE / 530 E. WOODROW WILSON AVE. / JACKSON, MISS. / TELEPHONE EMerson 6-1422

ANNUAL CLINICAL CONFERENCE

CHICAGO MEDICAL SOCIETY

February 27, 28, March 1 and 2, 1962

Palmer House, Chicago

Daily Half-Hour Lectures by Outstanding Teachers and Speakers on subjects of interest to both general practitioner and specialist.

Panels on Timely Topics — Teaching Demonstrations

Medical Color Telecasts — Instructional Courses

Scientific Exhibits worthy of real study and helpful and time-saving Technical Exhibits.

The Chicago Medical Society Annual Clinical Conference should be a MUST on the calendar of every physician. Plan now to attend and make your reservations at the Palmer House.

APPALACHIAN HALL

ESTABLISHED — 1916

ASHEVILLE NORTH CAROLINA



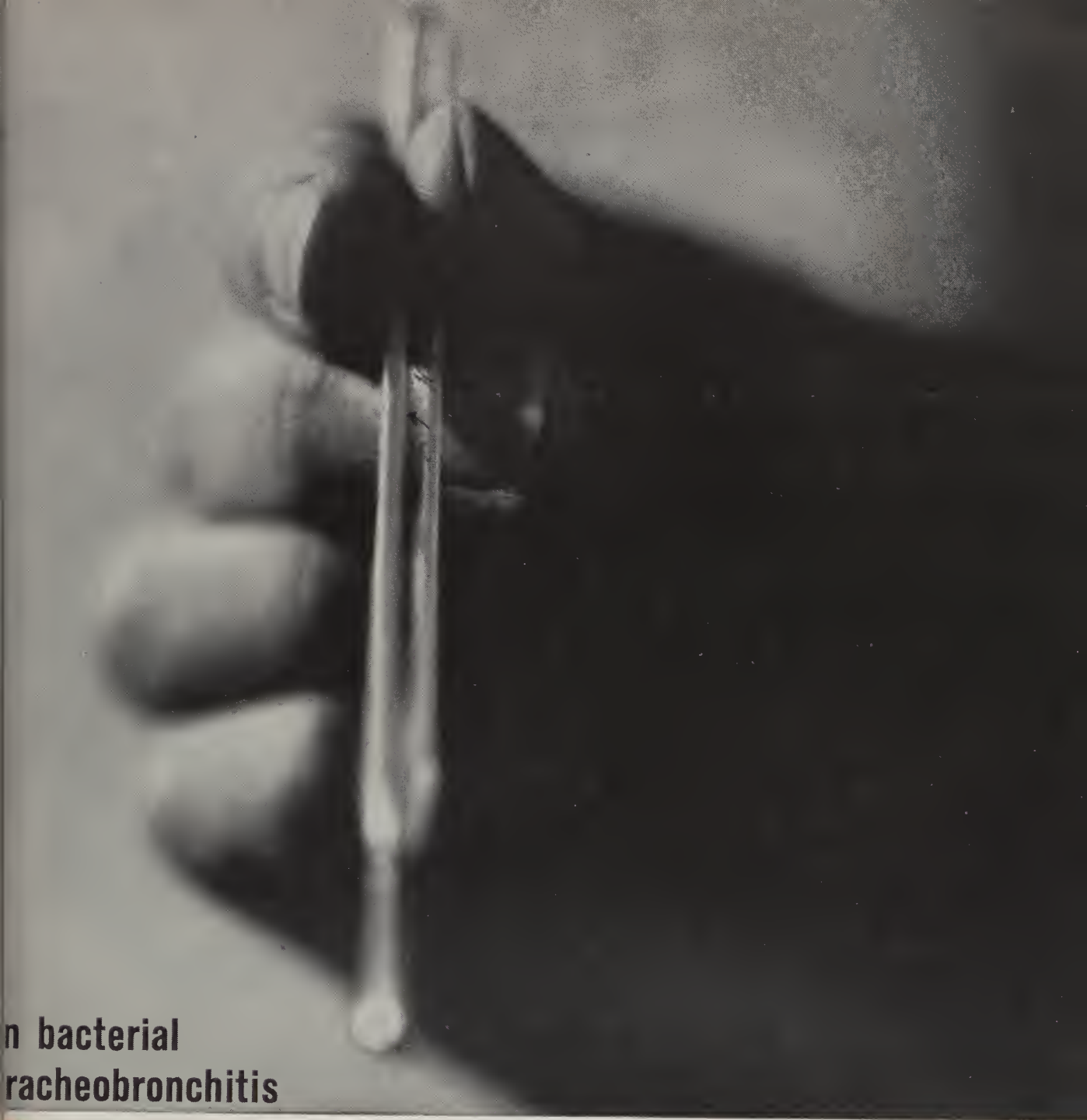
An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.

Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.

Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

WM. RAY GRIFFIN, JR., M.D. — MARK A. GRIFFIN, SR., M.D.
ROBERT A. GRIFFIN, M.D. — MARK A. GRIFFIN, JR., M.D.

For rates and further information, write: APPALACHIAN HALL, ASHEVILLE, N. C.



n bacterial
racheobronchitis

Panalba*
promptly

o gain precious
herapeutic hours

nalba your broad-spectrum
antibiotic of first resort

In the presence of bacterial infection, taking a culture to determine bacterial identity and sensitivity is desirable—but not always practical in terms of the time and facilities available.

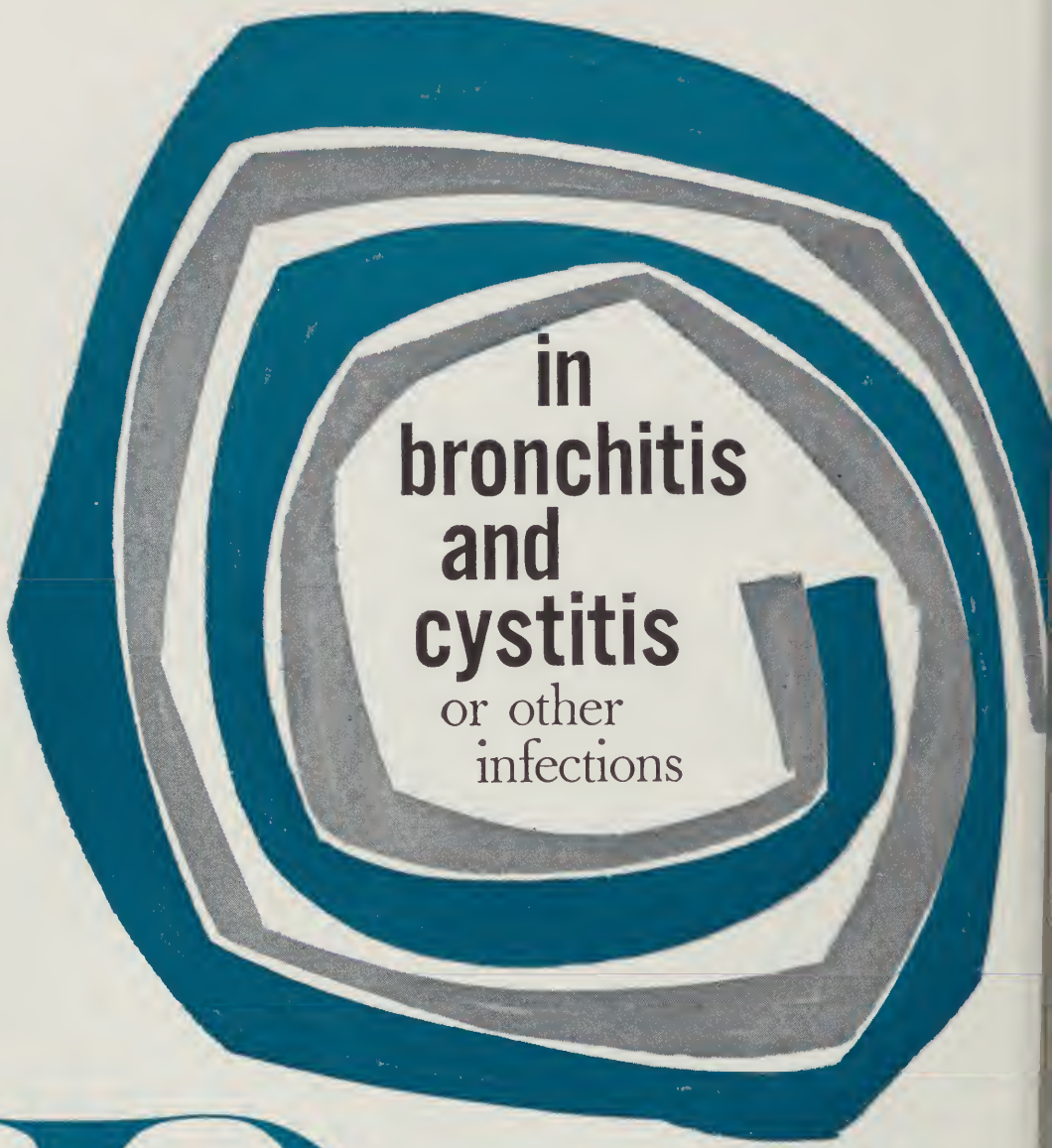
A rational clinical alternative is to launch therapy at once with Panalba, the antibiotic that provides the best odds for success.

Panalba is effective (in vitro) against 30 common pathogens, including the ubiquitous staph. Use of Panalba *from the outset* (even pending laboratory results) can gain precious hours of effective antibiotic treatment.

Supplied: Capsules, each containing Panmycin* Phosphate (tetracycline phosphate complex), equivalent to 250 mg. tetracycline hydrochloride, and 125 mg. Albamycin,* as novobiocin sodium, in bottles of 16 and 100.
Usual Adult Dosage: 1 or 2 capsules 3 or 4 times a day.
Side Effects: Panmycin Phosphate has a very low order of toxicity comparable to that of the other tetracyclines and is well tolerated clinically. Side reactions to therapeutic use in patients are infrequent and consist principally of mild nausea and abdominal cramps.
Albamycin also has a relatively low order of toxicity. In a certain few patients, a yellow pigment has been found in the plasma. This pigment, apparently, a metabolic by-product of the drug, is not necessarily associated with abnormal liver function tests or liver enlargement.
Urticaria and maculopapular dermatitis, a few cases of leukopenia and thrombocytopenia have been reported in patients treated with Albamycin. These side effects usually disappear upon discontinuance of the drug.
Caution: Since the use of any antibiotic may result in overgrowth of nonsusceptible organisms, constant observation of the patient is essential. If new infections appear during therapy, appropriate measures should be taken.
Total and differential blood counts should be made routinely during prolonged administration of Albamycin. The possibility of liver damage should be considered if a yellow pigment, a metabolic by-product of Albamycin, appears in the plasma. Panalba should be discontinued if allergic reactions that are not readily controlled by antihistaminic agents develop.

*Trademark, Reg. U.S. Pat. Off.
The Upjohn Company
Kalamazoo, Michigan

Upjohn



DECLO

antibiotic therapy wi

CAPSULES, 150 mg., 75 mg. *Dosage:* Average infections—150 mg. four times daily. Severe infections—Initial dose of 300 mg., then 150 mg. every six hours.

PEDIATRIC DROPS, 60 mg./cc. in 10 cc. bottle with calibrated, plastic dropper. *Dosage:* 1 to 2 drops (3 to 6 mg.) per pound body weight per day—divided into four doses.

SYRUP, 75 mg./5 cc. teaspoonful (cherry-flavored). *Dosage:* 3 to 6 mg. per pound body weight per day—divided into four doses.

PRECAUTIONS—As with other antibiotics, DECLOMYCIN occasionally give rise to glossitis, stomatitis, proctitis, n diarrhea, vaginitis or dermatitis. A photodynamic react sunlight has been observed in a few patients on DECLO Although reversible by discontinuing therapy, patients s avoid exposure to intense sunlight. If adverse reaction o syncrasy occurs, discontinue medication.

Overgrowth of nonsusceptible organisms is a possibilit DECLOMYCIN, as with other antibiotics, and demands th patient be kept under constant observation.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

a added measure of protection

MYCIN®

DEMETHYLCHLORTETRACYCLINE LEDERLE

against relapse— up to 6 days' activity on 4 days' dosage

against secondary infection— sustained high activity levels

against "problem" pathogens— positive broad-spectrum antibiosis



WHENEVER COUGH THERAPY
IS INDICATED

HYCOMINE®

Syrup

THE COMPLETE Rx FOR COUGH CONTROL

cough sedative / expectorant
antihistamine / nasal decongestant

■ relieves cough and associated symptoms in 15-20 minutes ■ effective for 6 hours or longer ■ promotes expectoration ■ rarely constipates ■ agreeably cherry-flavored

Each teaspoonful (5 cc.) of HYCOMINE* Syrup contains: Hycodan®

Dihydrocodeinone Bitartrate (Warning: May be habit-forming)	5 mg.	6.5 mg.
Homatropine Methylbromide	1.5 mg.	
Pyrilamine Maleate		12.5 mg.
Phenylephrine Hydrochloride		10 mg.
Ammonium Chloride		60 mg.
Sodium Citrate		85 mg.

Average adult dose: One teaspoonful after meals and at bedtime. May be habit-forming. Federal law allows oral prescription.

Endo®

Literature on request
ENDO LABORATORIES
Richmond Hill 18, New York

*U.S. Pat. 2,630,400



Calms the Tense, Nervous Patient

in anxiety and depression

The outstanding effectiveness and safety with which Miltown calms tension and nervousness has been clinically authenticated by thousands of physicians during the past six years. This, undoubtedly, is one reason why meprobamate is still the most widely prescribed tranquilizer in the world.

Its response is predictable. It will not produce unpleasant surprises for either the patient or the physician. Small wonder that many physicians have awarded Miltown the status of a proven, dependable friend.

Miltown®
meprobamate (Wallace)

Usual dosage: One or two 400 mg. tablets t.i.d.
Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50. Also as MEPROTABS®—400 mg. *unmarked,* coated tablets; and in *sustained-release* capsules as MEPROSPAN®-400 and MEPROSPAN®-200 (containing respectively 400 mg. and 200 mg. meprobamate).

WALLACE LABORATORIES
Cranbury, N. J.

CM-5644

Clinically proven in over 750 published studies

1 Acts dependably — without causing ataxia or altering sexual function

2 Does not produce Parkinson-like symptoms, liver damage or agranulocytosis

3 Does not muddle the mind or affect normal behavior



for more satisfactory relief of anxiety-aggravated pain

PHENAPHEN®

- More satisfactory than "the usual analgesic compounds" for relieving pain and anxiety.[1]
- More effective than a standard A.P.C. preparation for relief of moderate to severe pain.[2]

Each PHENAPHEN *capsule contains:*

Acetylsalicylic acid (2½ gr.)	162 mg.
Phenacetin (3 gr.)	194 mg.
Phenobarbital (¼ gr.)	16.2 mg.
Hyoscyamine sulfate	0.031 mg.

Also available:

PHENAPHEN with CODEINE PHOSPHATE
¼ GR. (16.2 mg.) Phenaphen No. 2

PHENAPHEN with CODEINE PHOSPHATE
½ GR. (32.4 mg.) Phenaphen No. 3

PHENAPHEN with CODEINE PHOSPHATE
1 GR. (64.8 mg.) Phenaphen No. 4

Bottles of 100 and 500 capsules.

1. Meyers, G. B.: Ind. Med. & Surg. 26:3, 1957. 2. Murray, R. J.: N. Y. St. J. Med. 53:1867, 1953.

A. H. ROBINS CO., INC., RICHMOND 20, VIRGINIA

Making today's medicines with integrity... seeking tomorrow's with persistence.

Robins

NEWSLETTER

MISSISSIPPI STATE MEDICAL ASSOCIATION
JACKSON, MISSISSIPPI

January 1962

Dear Doctor:

Mississippi's permanent Kerr-Mills program of medical care for the indigent aged may be financed through private insurance. Senator G. V. Montgomery, Meridian, is reviewing studies by underwriters proposing a plan paying up to $29 per day for hospital care under OAA and MAA. State-federal funds would be used for premiums.

> Senator Montgomery, chairman of the Senate Insurance Committee, says present interim benefits are not adequate. Program now allows $15 per day for 15 days maximum inpatient care. MSMA is proposing qualitative and quantitative increases in benefits without additional state funds.

A recent death in California marks the end of an era in the fight against socialized medicine. Clem Whitaker, Sr., leader of the famed Whitaker and Baxter team who sparked AMA's successful campaign against the Wagner-Murray-Dingell bill 12 years ago died last month at age 62. The public relations expert fought liberal legislation, managed political campaigns for gubernatorial candidates, and was a key figure in the 1952 Eisenhower race.

"That which we call a rose by any other name would smell as sweet," opined the Bard who could have had chiropractors in mind. At their annual meeting last month, the local spine punchers restyled themselves the Mississippi Chiropractic Physicians Association.

Food and Drug Administration officials seized stocks of a drug alleged to have been falsely promoted to athletic coaches to soup up players. "Coach-Aid Stim-O-Stam," which FDA said is alkali phosphate salts, is supposed to aid physical endurance, prevent fatigue, lessen muscle soreness, and improve physical efficiency - which it obviously doesn't.

The American Osteopathic Association lost the first round of court battles to prevent merger of California's doctors of medicine and osteopaths. AOA's new California chapter sued for declaratory judgment against CMA-COA agreement to combine groups toward the end of qualifying California osteopaths as M.D.'s and lost. Appeal from the trial court decision is expected.

Sincerely,

Rowland B. Kennedy
Executive Secretary

DATELINE - MEDICAL AMERICA

Investigation Of 'Diabetic' Ice Cream Is Initiated

Albany, N. Y. - The New York State Department of Health is looking into potential health dangers of "diabetic" and "dietetic" ice cream. Studies show comparison of standard and diabetic ice creams differences so small as to challenge usefulness of special preparation. One-half cup portions of regular and special formulas disclosed calorie counts of 146 in former and 125 in latter with carbohydrate content of 15.5 and 11.6 gm., respectively. Advertising of diabetic formula ice cream usually overlooks rest of diet.

Federal Agencies Gun For Mexican Quack Advertising

Washington - The ghost of Doc Brinkley is stalking the air waves what with another Mexican radio station promoting monkey gland artists again. Product promoted is "an extract to make men young again." Plan to quash operation involves FCC monitoring and recording, turning tapes over to postal inspectors to check for use of mails, and calling in Justice Department for prosecution. While U.S. can do nothing about Mexican radio commercials, it can lean on use of mails and fraudulently labeled preparations.

Georgia Kerr-Mills Program Is Under State Medical Association

Atlanta - The Medical Association of Georgia has signed a contract with state department of public welfare to receive and process claims for care of aged under the Kerr-Mills program. MAG will make medical determinations in administration of plan and furnish consultative services. Georgia program is totally medically oriented.

Diners' Club Turns Thumbs Down On Mail Order Rx

New York - Working in cooperation with the American Pharmaceutical Association, the Diners' Club will henceforth refuse advertising for mail order drugs in its mass circulation magazine. Dr. William S. Apple, secretary of APhA, commended the giant credit card organization for "their wise and prompt action in safeguarding the public health." Cease and desist orders against Rx-by-mail have been issued in 14 states including Mississippi.

AMA Steps Up Program To Warn Public Against Chiropractic

Chicago - AMA's Department of Investigation is mounting a new public education campaign to warn against dangers of treatment in the hands of cultists. Dr. F. J. L. Blasingame, AMA executive vice president, says that "naivete toward chiropractic can lead only to increased public health hazards and, inevitably, to lower esteem for the medical profession and all the legitimate health sciences."

How to help your patient stick to a geriatric diet

The secret ingredient in a successful diet is acceptance. Meat is as important for the old as for the young—and every bit as appealing. Chops, fish steaks, chicken parts or cutlets can be bought in small portions. Chopped or strained vegetables not only supply the patient on a geriatric diet with needed vitamins, but are easy to chew. The same is true of easy-to-make, one-dish casseroles. Patients of advanced years enjoy salads because they need no cooking, and canned fruits are an extra convenience for the elderly. Fluid intake should be liberal, of course.



A glass of beer can add zest to a patient's diet

Sodium 17 mg.
calories 104/8 oz. glass
(Average of American Beers)



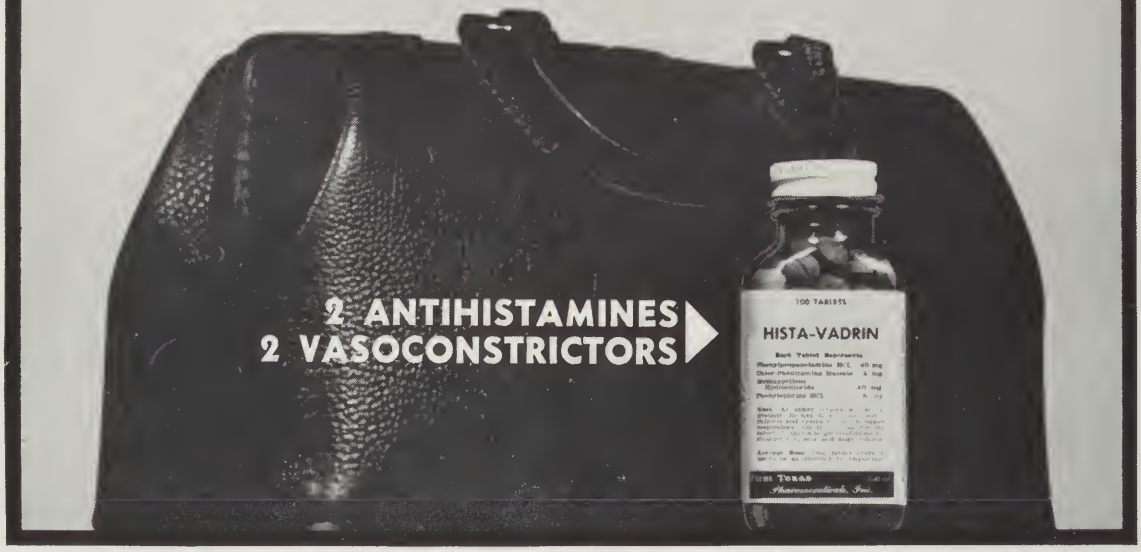
Delicious dishes like these can help the aged enjoy a better balanced diet.

United States Brewers Association, Inc.

For reprints of this and 11 other diet menus, write us at 535 Fifth Avenue, N.Y. 17, N.Y.

HISTA-VADRIN

when antihistamines alone are not enough



HISTA-VADRIN, an upper respiratory decongestant, is designed for the oral relief of congestion and edema of the upper respiratory passages. The ANTIHISTAMINIC drugs methapyriline and chlor-pheniramine are noted for their ability to prevent vasodilatation and inflammatory edema caused by the release of histamine.

VASOCONSTRICTORS, phenylpropanolamine and phenylephrine oppose mucosal edema by constricting blood vessels which have been dilated by histamine and other factors involved in inflammation. These vasoconstrictors are not as likely to cause excitement or wakefulness as ephedrine or methamphetamine (1).

Indications: For the relief of hay fever, vasomotor rhinitis, and symptoms resulting from upper respiratory infections. Hista-vadrin can afford relief also in other allergic conditions such as urticaria and angioedema.

Each scored Hista-vadrin tablet contains:

Phenylpropanolamine Hydrochloride ....40 mg.
Chlor-Pheniramine Maleate ..... 4 mg.
Methapyriline Hydrochloride .....40 mg.
Phenylephrine Hydrochloride ..... 5 mg.

Dosage: Adult Dose, 1 tablet every six hours or in accordance with therapeutic response.

Supplied: Slow release scored tablets designed to disintegrate in 2 to 3 hours.

Reference available on request.

Samples and professional literature on request.

HISTA-VADRIN is another "established need" product

in our 61st year . . . **First Texas *Pharmaceuticals, Inc.***

DALLAS, TEXAS • SINCE 1901

'Bed-Disability Days' In U.S. Top Billion

In the course of a year, the employed population of the United States spent 265 million days in bed as a result of illness or injury, according to Health Insurance Institute tabulations.

This represents one-quarter of the 1,054,800,000 "bed-disability days" suffered by the civilian noninstitutional population during the year ending June 1960. The information was based on an analysis of data from the U. S. National Health Survey.

The average worker had 4.3 days of bed disability per year, while the rate for men was 4.0 days and for women, 5.0.

More than 42 million American workers are assured that their income will continue in the event they are disabled by off-the-job illness or injury.

As of the end of 1960, insurance companies protected 31,836,000 persons against the loss of income due to disability, and 10,600,000 workers were protected by other arrangements such as formal paid sick leave plans of federal, state and local governments; private industry; union plans, and employee mutual benefit associations.

The total of 42,436,000 persons so protected—representing 60 per cent of the civilian labor force—did not include the millions of other employees with some degree of income protection through informal wage-continuation practices. In addition, workmen's compensation provides wage replacement and medical care benefits for workers who are disabled while on the job.

In insurance company loss-of-income protection, the insured person may receive, depending on the policy, up to 75 or 80 per cent of his take-home pay.

In the case of accidents, benefits usually start on the first day, and for sickness the common waiting period for benefits is eight or 15 days. However, the insured person may have these payments start one, two or three months after disability begins to coincide the waiting period with the termination of any disability payments made by the employer.

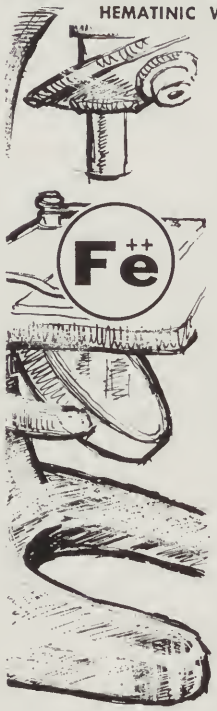
Many of these policies offer increased benefits for medical care when the insured becomes hospitalized, and any loss-of-income benefits are tax free.

The amount of benefits paid out under this coverage has been steadily increasing. The 42 million persons covered at the end of 1960 was an increase of 10.6 per cent over the 38 million so protected at the end of 1952. In 1960, insurance companies paid out $917 million to replace income lost through disability.

In Iron Deficiency Anemias

IROMIN-G®

HEMATINIC WITH VITAMINS AND MINERALS



FOR *RAPID* HEMOGLOBIN *RESPONSE*

IROMIN-G® tablets contain, in addition to the well tolerated ferrous gluconate, copper and manganese for rapid hemoglobin regeneration, and a nutritional supplement of minerals and vitamins including Vitamin B-12.

Results are usually achieved without gastric upset, constipation or diarrhea.

INDICATIONS: Secondary anemias and as a supplement for the prenatal, teen-age, and geriatric diet.

SUPPLIED: Bottles of 100 & 1000

DOSAGE: One tablet three times a day after meals or as directed by a physician.

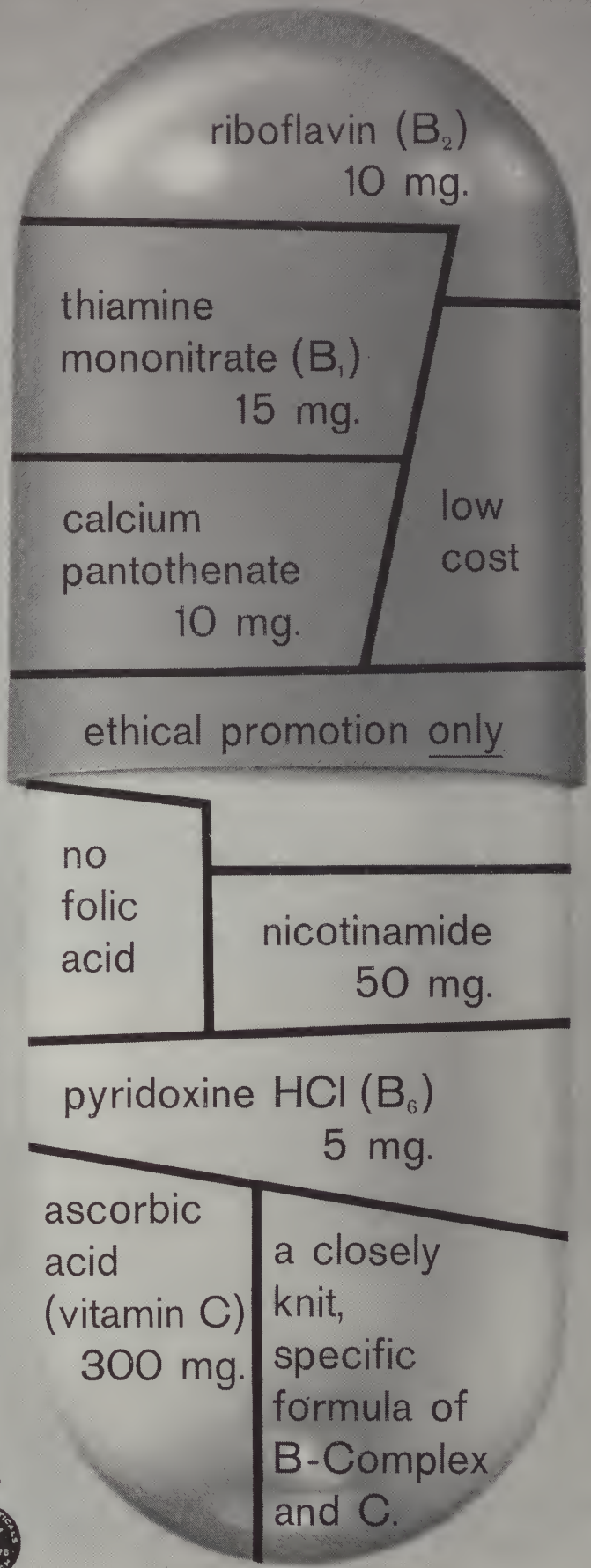
The suggested daily schedule pravides:

Ferraus Glucanate	1000.	mg
(Iran	116.	mg)
Vitamin B_{12} (crystalline, an resin)	6.0	mcgm
Ascarbic Acid (Vitamin C)	120.	mg
Vitamin A Acetate	15000.	USP units
Vitamin D_2	1500.	USP units
Thiamine Mananitrate (Vitamin B_1)	6.0	mg
Ribaflavin (Vitamin B_2)	6.0	mg
Pyridaxine HCl (Vitamin B_6)	3.0	mg
d-Calcium Pantathenate (Vitamin B_5)	3.0	mg
Niacinamide (Vitamin B_3)	60.	mg
Calcium Lactate	576.	mg
Calcium Carbanate	210.	mg
(Calcium	159.	mg)
Capper (as Sulfate)	0.45	mg
Manganese (as Citrate saluble)	0.75	mg
Zinc (as Oxide)	0.24	mg
Patassium (as Chlaride)	15.	mg
Magnesium (as Carbanate)	7.5	mg

COMPLETE LITERATURE AND SAMPLES ON REQUEST

Mission Pharmacal Co.
SAN ANTONIO 6, TEXAS

this is what Allbee® with C is made of!



A. H. Robins Company, Inc.
Richmond 20, Virginia





1¼ Grs. Ea.
FLAVORED

Living up to a family tradition

There are probably certain medications which are special favorites of yours, medications in which you have a particular confidence.

Physicians, through ever increasing recommendation, have long demonstrated their confidence in the uniformity, potency and purity of Bayer Aspirin, the world's first aspirin.

And like Bayer Aspirin, Bayer Aspirin for Children is quality controlled. No other maker submits aspirin to such thorough quality controls as does Bayer. This assures uniform excellence in both forms of Bayer Aspirin.

You can depend on Bayer Aspirin for Children for it has been conscientiously formulated to be the best tasting aspirin ever made and to live up to the Bayer family tradition of providing the finest aspirin the world has ever known.

Bayer Aspirin for Children—1¼ grain flavored tablets—Supplied in bottles of 50.

● We welcome your requests for samples on Bayer Aspirin and Flavored Bayer Aspirin for Children.

New
GRIP-TIGHT CAP
for Children's
Greater Protection



THE BAYER COMPANY, DIVISION OF STERLING DRUG INC., 1450 BROADWAY, NEW YORK 18, N. Y.

In oral penicillin therapy

COMPOCILLIN-VK

offers the speed, the certainty,

the effectiveness

of this...



with the safety

and the convenience

of this...



IN ORAL PENICILLIN THERAPY

COMPOCILLIN®-VK

POTASSIUM PENICILLIN V

BECAUSE potassium penicillin V (Compocillin-VK) offers excellent absorption[1,2,3,4]—fast, predictable levels of antibacterial activity enter the blood stream and quickly reach the site of infection. *Absorption takes place high in the digestive tract and is virtually unaffected by gastric media.*

Antibacterial levels are so predictable that, in many cases, *Compocillin-VK may be prescribed in place of injectable penicillin.* This is especially appreciated by younger patients and—as you know—oral administration is considered far safer than injectable.

Compocillin-VK is well tolerated and may be used in treating mild, severe, and in high dosage ranges, even critical cases involving penicillin-sensitive organisms. It comes in stable, palatable forms for every patient—every age.

There are tiny, easy-to-swallow Filmtab® tablets—125 mg. and 250 mg. (200,000 units and 400,000 units), a tasty, cherry-flavored suspension (each 5-ml. teaspoonful contains 125 mg.) and two combinations (Filmtab and suspension) with the triple sulfas. Depending on severity of infection, dosage for Compocillin-VK is usually 125 mg. or 250 mg. three times a day. Won't you try Compocillin-VK?

1. R. Lamb and E. S. Maclean, Penicillin V—A Clinical Assessment After One Year, *Brit. M. J.*, July 27, 1957, p. 191-193. 2. J. I. Burn, M. P. Curwen, R. G. Huntsman and R. A. Shooter, A Trial of Penicillin V, *Brit. M. J.*, July 27, 1957, p. 193. 3. J. Macleod, Current Therapeutics, *The Practitioner*, 178:486, April, 1957. 4. W. J. Martin, D. R. Nichols and F. R. Heilman, Observations on Clinical Use of Phenoxymethyl Penicillin (Penicillin V), *J.A.M.A.*, p. 928, March 17, 1956.

ABBOTT

®FILMTAB—FILM-SEALED TABLETS, ABBOTT.
110261

AMA Merges Education and Research Groups

Two scientific philanthropic foundations sponsored by the American Medical Association have been merged into a single organizational framework to provide new and expanded services. The American Medical Education Foundation and the American Medical Research Foundation became the American Medical Association Education and Research Foundation on Jan. 1.

The merger was authorized by the AMA House of Delegates meeting at Denver during the 15th Clinical Session, Nov. 27-30, 1961. AMEF, the older of the two foundations, was organized in 1951 to provide financial assistance to medical schools. AMRF was founded in 1957 for broader purposes but has had authority to assist medical education in addition to granting research funds.

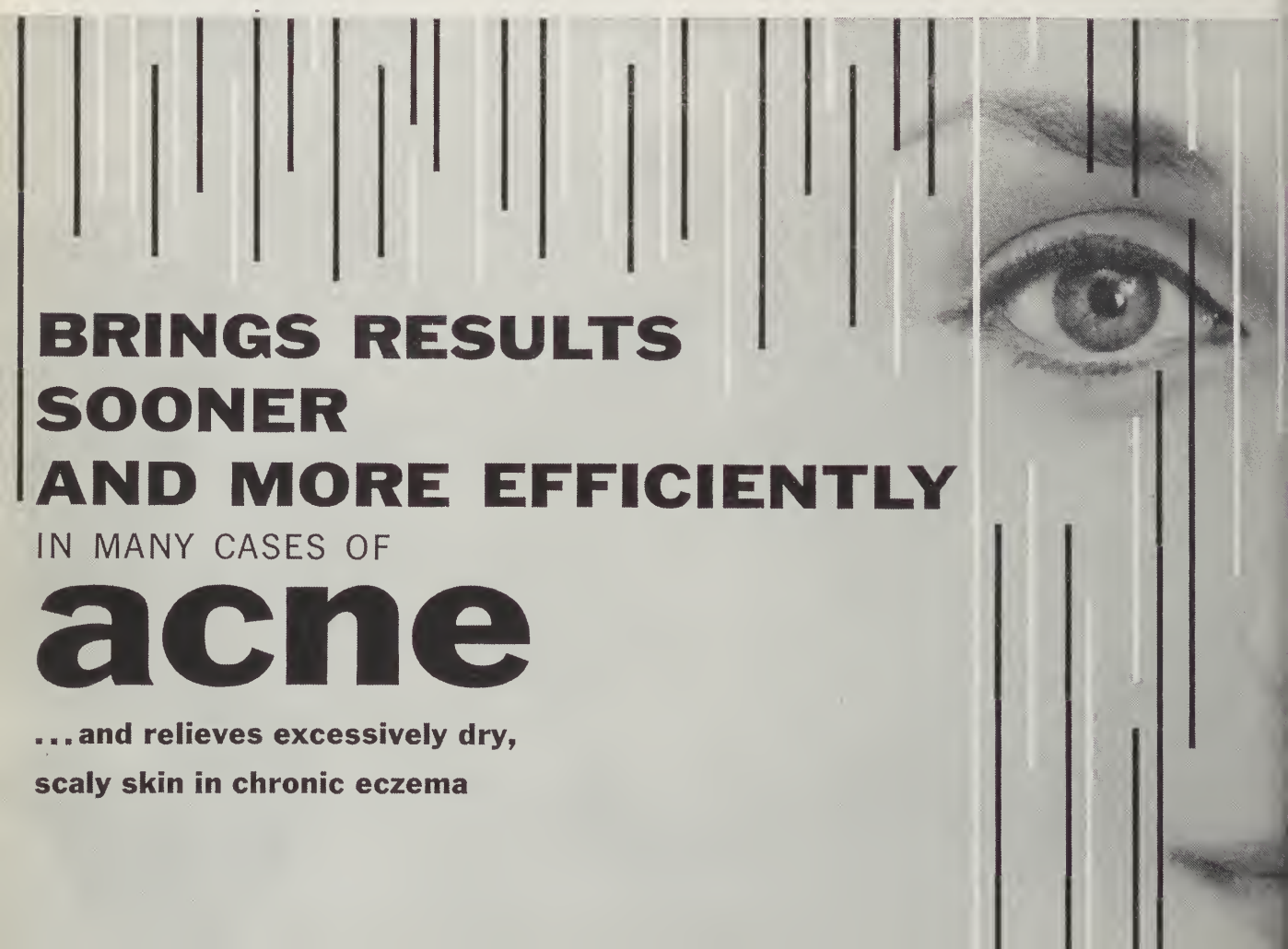
The AMA-ERF has been incorporated under the laws of Illinois as an educational and scientific organization. All contributions made to it are fully tax deductible for federal purposes under Section 501(c)(3) of the U. S. Internal Revenue Code. Affairs of the new foundation are managed by a five member board of directors. Elected for 1962 are:

Hugh H. Hussey, M.D., Washington, president
Raymond M. McKeown, M.D., Coos Bay, Ore., vice president
James Z. Appel, M.D., Lancaster, Pa., secretary-treasurer
Leonard W. Larson, M.D., Bismarck, N. Dak., director
Gerald D. Dorman, M.D., New York, director

A five-prong program has been established for early foundation activities. It includes unrestricted financial assistance to medical schools, a medical journalism fellowship program, a research grants program, study of perinatal mortality and morbidity, and a study of continuing medical education. The foundation will also endeavor to raise funds for medical scholarships and for loans to medical students, interns, and residents.

Ob-Gyn Board Sets Part II Examinations

The next examinations of the American Board of Obstetrics and Gynecology, Part II, oral and clinical, are slated for April 9-14. The entire



Board will conduct the tests to be held at the Edgewater Beach Hotel in Chicago.

Current bulletins of the Board outlining the requirements for applications may be obtained by writing to the secretary, Dr. Robert L. Faulkner, 2105 Adelbert Road, Cleveland 6, Ohio.

Safety Efforts Urged To Cut Accident Toll

Accidents kill more American children and young adults than all diseases combined, and one of the most important reasons are the misconceptions about safety held by many young people.

According to the Health Insurance Institute the development of more and more safety devices has helped to reduce the number of accidents, but more work needs to be done to improve individual knowledge, attitudes and habits concerning safety.

The need for improved safety teaching for youngsters was indicated in a survey of some 5,000 school children published by the American Association for Health, Physical Education, and Recreation. The survey showed the prevalence of health and safety misconceptions held by the children which included:

—Many thought that a bullet cannot go off unless it is fired by a gun; oil, grease and gas fires should be doused with water; if clothing catches fire, a person should always run for water; and bicycle riders do not have to obey traffic lights.

—About 75 per cent of the children thought the only good way to help a drowning person is to jump into the water to save him.

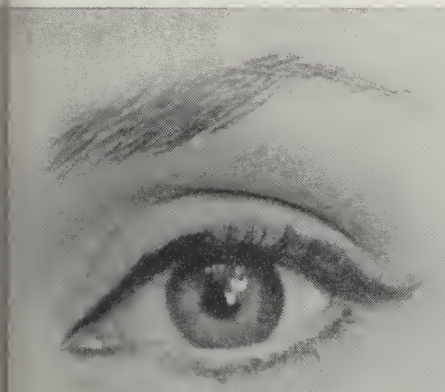
—Some 26 per cent of tenth graders thought it was all right to point a gun at someone if you are sure it is not loaded.

Some valuable guides for helping children to live safely are included in a pamphlet prepared by the American Acadamy of Pediatrics, which said:

—Infants and preschool children should not be left unsupervised for even a short time for they are very susceptible to accidental injuries.

—Children are great imitators, and actions and attitudes of adults will be copied. It is not enough to tell a child to cross the street only when the light is green if the parent then crosses when the light is red.

—Excessive limitations of a child's activities may hinder the development of his ability to cope with dangerous situations.



aquasol A

capsules

the original aqueous, natural vitamin A capsules

Samples and literature upon request.

u. s. vitamin & pharmaceutical corporation

Arlington-Funk Laboratories, division

New York 17, N. Y.

faster, more complete absorption because microscopic aqueous vitamin A particles pass through intestinal barrier more readily...

more effective because aqueous, natural vitamin A produces higher blood levels faster, and may diffuse more readily into affected tissues.

good tolerance because "burping" and allergenic factors have been removed.

for more dependable faster results Rx Aquasol A capsules . . . whenever vitamin A is indicated in

acne • dry skin • chronic eczemas • metaplasia of the mucous membranes • follicular hyperkeratosis • night blindness • lowered resistance to infections

three separate high potencies (water-solubilized natural vitamin A) per capsule:

25,000 U.S.P. units
50,000 U.S.P. units
100,000 U.S.P. units

Bottles of 100, 500 and 1000 capsules.

When vitamin A in high dosage is given for a prolonged period, it is advisable that treatment be interrupted at intervals to avoid possible hypervitaminosis.



Out-Patient Clinic and Offices

HILL CREST SANITARIUM

Established in 1925

FOR NERVOUS AND MENTAL DISEASES
AND ADDICTION PROBLEMS

James A. Becton, M.D.
P. O. Box 2896, Woodlawn Station, Birmingham 6, Ala.

James Keen Ward, M.D.
Phone 595-1151 and 595-1152



ST. PAUL MULTICOVER PLAN

SINGLE PACKAGE OFFERS THE PROFESSIONAL MAN THE MOST COMPLETE, MOST CONVENIENT COVERAGES EVER!

Choose from over 40 kinds of protection, pack those you need into a single St. Paul Multicover Plan. Deal with just one agent . . . pay just one premium. It's simple and safer, too.

Avoids overlapping coverages or loopholes between individual policies. Write for explanatory booklet.

THE ST. PAUL
INSURANCE COMPANIES

Serving you around the world... around the clock

St. Paul Fire & Marine Insurance Company
St. Paul Mercury Insurance Company
Western Life Insurance Company

Endorsed for Professional Liability by Mississippi State Medical Association

MISSISSIPPI OFFICE
P.O. Box 1412
1129 Deposit Guaranty Bank Bldg.
Jackson 5, Mississippi
FLeetwood 3-4961

HOME OFFICE
385 Washington Street
St. Paul 2, Minnesota

Schering



relieve U. R. I. distress rapidly

- relieve sneezing, runny nose
- ease aches and pains
- lift depressed feelings
- reduce fever, chills

For complete details, consult latest Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Bloomfield, N. J.

Rx CORIFORTE™ capsules

Each CORIFORTE Capsule contains:

CHLOR-TRIMETON® (brand of chlorpheniramine maleate)	4 mg.
salicylamide	0.19 Gm.
phenacetin	0.13 Gm.
caffeine	30 mg.
methamphetamine hydrochloride	1.25 mg.
ascorbic acid	50 mg.

when your tongue blade points to respiratory infection



Ilosone® works to speed recovery

Through the years, Ilosone has built an impressive record as an effective antibiotic in common bacterial respiratory infections. Numerous published clinical studies attest to excellent therapeutic response with Ilosone. Decisive recovery has become a matter of record.

Efficacy of propionyl erythromycin and its lauryl sulfate salt in 803 patients with common bacterial respiratory infections

92.3% 235 patients	Tonsillitis*
88.3% 317 patients	Acute Streptococcus Pharyngitis*
95.3% 85 patients	Bronchitis* (Bacterial Complications)
88.6% 166 patients	Pneumonia*

*References supplied on request.

The usual dosage for infants and for children under twenty-five pounds is 5 mg. per pound every six hours; for children twenty-five to fifty pounds, 125 mg. every six hours.

For adults and for children over fifty pounds, the usual dosage is 250 mg every six hours.

In more severe or deep-seated infections, these dosages may be doubled.

Ilosone is available in three convenient forms: Pulvules®—125 and 250 mg.†; Oral Suspension—125 mg.† per 5-cc. teaspoonful; and Drops—5 mg.† per drop, with dropper calibrated at 25 and 50 mg.

Product brochure available; write
Eli Lilly and Company, Indianapolis 6, Indiana

†Base equivalent
Ilosone® (erythromycin estolate, Lilly)
(propionyl erythromycin ester lauryl sulfate) 232534

Lilly
QUALITY / RESEARCH / INTEGRITY

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature.

JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION
January, 1962, Vol. III, No. 1

ORIGINAL PAPERS

Surgical Treatment of Carotid Insufficiency

FRANCIS MURPHEY, M.D.
Memphis, Tennessee

Carotid occlusive disease, a relatively common condition, usually gives warning of its presence before permanent brain damage is sustained. If the diagnosis is made and the operation performed before such damage has occurred and before the clot has organized in the artery, excellent results may be obtained.

The author considers only lesions produced by arteriosclerotic plaques. He discusses symptoms, diagnosis, and management and presents the results of his study of 101 patients.

VASCULAR LESIONS of the nervous system rank third among the causes of death in this country. Occlusive diseases of these vessels are far more common than all other vascular lesions of the central nervous system combined and most of these involve the intracranial vessels. The exact incidence of occlusive disease of the extracranial vessels which supply the brain is not known, but it is probably less than was originally thought. Nevertheless, they are common enough, and in these patients, catastrophic hemiplegia can most frequently be prevented.

The majority of the occlusions or stenoses of the internal carotid artery in the neck are the result of arteriosclerotic plaques. In addition, a thrombus superimposed on a plaque or a hemorrhage behind the plaque may be the final occluding factor. Other causes of occlusion of this artery are saddle emboli originating in the heart, trauma, dissecting aneurysms, arteritis, polycythemia, and tumor. In this paper only those lesions produced by arteriosclerotic plaques will be considered.

The causes of symptoms which follow occlusion or severe stenosis of the internal carotid artery in the neck may be generally classified as ischemic, on one hand, and embolic or thrombotic, on the other. Should the blood pressure drop suddenly or spasm occur in the intracranial circulation in the presence of occlusion or stenosis of one artery, transitory symptoms, such as contralateral hemiparesis, aphasia, and homolateral

From the Section of Neurosurgery, University of Tennessee College of Medicine, Baptist Memorial Hospital, and City of Memphis Hospitals.
Read before the Section on Surgery, Mississippi State Medical Association, 93rd Annual Session, Biloxi, May 9-11, 1961.

blindness may occur if the collateral circulation is inadequate. Cases have been seen during transitory attacks in which the blood pressure is quite normal and there is reason to believe something else was happening. It has been suggested that a transient thrombus forms at the site of a stenosis which produces insufficiency and is rapidly lysed by the fibrinolysin in the blood with recovery.

MENTAL DETERIORATION

If further stenosis of the carotids and vertebrals develops, a state of chronic ischemia may lead to progressive paralysis or mental deterioration. It is worth noting, however, that contrary to what had previously been thought about cerebral arteriosclerosis, none of the cases in this series had mental deterioration as the only presenting symptom. All who had mental deterioration had, in addition, a history of transient strokes or major strokes. When total occlusion of the internal carotid in the neck occurs, a thrombus forms distal to the occluding plaque and may propagate upward to occlude the middle and/or anterior cerebral arteries or a part of it may break off from movement of or pressure on the neck and float upward as an embolus, occluding major or minor vessels in the head. Furthermore, thrombi form on the plaque or in the eddies distal to the plaque and break off as emboli to vessels in the brain. Ordinarily the emboli or propagating clots produce the catastrophic brain damage. Only rarely is the collateral circulation so inadequate that occlusion of the artery in the neck without embolization produces catastrophic strokes.

CLASSICAL SYMPTOMS

Classically, occlusion of the internal carotid artery produces homolateral monocular blindness and contralateral hemiparesis or hemihypesthesia. These symptoms have been recognized for years, and it was only after arteriography became an everyday diagnostic tool that it was determined such lesions might mimic brain tumor, hemorrhage and other diseases of the brain. Fortunately, however, in the vast majority of cases the onset is heralded by some prodromata, such as the transitory symptoms mentioned previously. This fact is of the greatest significance because it is obviously important to recognize the condition at this stage before occlusion of a major vessel with permanent brain damage has occurred.

From a neurologic standpoint, there are no classical findings from which one could make a diagnosis of carotid occlusion or stenosis with certainty. However, certain additional measures are helpful. Palpation of the neck may reveal a complete lack of pulse in the entire carotid, which usually means the carotid from the innominate or arch of the aorta to the base of the skull is occluded. In such cases nothing can be done. Palpation of the internal carotid at the bifurcation or in the tonsillar fossa is usually unreliable because it is difficult to separate the pulses of the internal and external carotids. In some cases of stenosis, auscultation of the neck may reveal a systolic bruit. Compression of the opposite common carotid may be of value. After compression for 15 to 20 seconds on the good side, dizziness, syncope, or convulsion may occur if there is insufficiency on the opposite side. Needless to say, this should be done with extreme care. The use of the ophthalmodynamometer with which one measures the retinal blood pressure is valuable and quite accurate in most cases of occlusion of the internal carotid artery. In such cases, the retinal pressure on the side of the lesion will be lowered from 30 to 50 per cent. On the other hand, it is quite apt to be normal even in symptomatic stenosis of the artery because it has been known for many years that the caliber of the vessel must be decreased to 10 per cent of the original before the blood pressure is significantly reduced distal to that point.

ARTERIOGRAPHY NECESSARY

At the present time, however, arteriography is necessary to establish the diagnosis in most cases, and it is now apparent that to evaluate a patient properly one must visualize all of the vessels which supply the brain from the arch of the aorta all the way into the intracranial cavity. This, of course, would include the innominate, both carotids, and both vertebrals. At the present time a retrograde right carotid arteriogram is performed which shows the innominate, the right carotid, the right subclavian, and the right vertebral. On the left, the carotid is visualized by percutaneous injection and the left vertebral by percutaneous retrograde brachial injection. It should be emphasized that a thorough knowledge of neurological diseases is necessary to evaluate such patients because it is not uncommon for patients with brain tumors, subdural hematomas, and other diseases to have carotid disease as well.

At the present time, the effectiveness of various types of therapy, including medical and surgical treatment, are being studied through cooperative efforts sponsored by the National Institute of Health. However, there is no doubt whatever that

both anticoagulants and surgery are effective in preventing a great many of the strokes that would otherwise normally occur. In our opinion, however, there is no substitute for normal blood flow and for that reason we have been concerned with attempts at its restoration. Currently, at least, the only means of accomplishing this is by surgery.

ENDARTERECTOMY

Although many techniques have been devised, our efforts have been confined to the use of endarterectomy because it is relatively simple, the collateral circulation is preserved, and we have an aversion to the use of foreign materials in the body. The primary objectives of the operation are two: to relieve ischemia, either transient or chronic, and to prevent infarction from thrombosis or embolism. To attain these objectives, it is important that the diagnosis be made and surgery performed during the stage of transitory symptoms and before permanent brain damage has occurred. At the present time operation is indicated if one can be sure that the lesion being discussed is the cause of symptoms in cases of:

1. Complete occlusion or severe stenosis with transitory symptoms
2. Complete occlusion or severe stenosis with emboli to smaller vessels in the brain from which the patient may be expected to make a reasonably worthwhile recovery
3. Complete occlusion or severe stenosis with rapidly progressive hemiplegia
4. Complete occlusion with global hemiplegia of less than three hours' duration
5. Bilateral disease, as in (1) and (2)
6. Bilateral disease with early mental deterioration

MANAGEMENT OF PATIENT

At the present time a patient suspected of having carotid insufficiency is handled in the following manner: When the patient is admitted, the neurologic examination is done rapidly along with the ancillary maneuvers described previously. An x-ray of the skull and spinal fluid examination are carried out immediately, and if there is no evidence of increased intracranial pressure or of intracranial hemorrhage, the patient is placed on heparin drip and an arteriogram carried out as quickly as possible. If a significant lesion is demonstrated, heparin is continued and the patient is operated on the next morning. If the artery is totally occluded and the patient has a hemiplegia of two or three hours' duration, the operation is carried out on an emergency basis.

The operation is always performed under local anesthesia so the patient's neurologic status may be observed at all times. A shunt is available in case the patient's neurologic status changes for the worse after a stenosed artery has been clamped off. So far, we have seldom had to use it. However, on several occasions when the patient developed signs of ischemia, we have been able to continue the operation simply by lowering the head and raising the blood pressure.

DETAILS OF OPERATION

The details of the operation are as follows: The artery is exposed through a vertical incision along the anterior border of the sternocleidomastoid muscle. The common carotid artery approximately two inches below the bifurcation is then exposed, care being taken not to dislodge a thrombus. Occasionally, in order to expose the whole extent of the occluded or stenosed segment, it is necessary to divide the digastric muscle and to expose the hypoglossal nerve so it may be retracted upward. If the internal carotid artery is totally occluded, an incision is made above the plaque and the thrombus exposed. If it is not well organized, the pressure across the circle of Willis will usually blow the clot out of the vessel, following which a clamp is placed on this vessel. On the other hand, if the clot is partially organized, an attempt is made to suck it out and if this fails, the operation is abandoned. Following removal of the clot and obtaining a good retrograde flow, a clamp is then placed on the external carotid and heparin solution injected proximal or distal to the clamps as necessary.

The incision is then extended over the plaque which is removed. It is of greatest importance to develop the proper line of cleavage, and if one does so, the plaque may be peeled out with little difficulty with little or no media attached to the plaque. The intima is severed proximally and distally and the distal intima is tacked down with four interrupted sutures. The arteriotomy wound is closed with a continuous running suture of 00000 arterial silk, during which the interior of the vessel is irrigated with heparin. So far, we have found that a patch is unnecessary. If a stenosis is present rather than an occlusion, it is a foregone conclusion that a good retrograde flow will be obtained, so that clamps are placed on the common carotid, the external and internal carotids, and an incision made over the plaque which is removed, as described previously. It is always wise to flush out all of the arteries by temporary removal of the clamps just before the last arteriotomy sutures are put in place.

The order of removal of clamps may be of importance. The clamp on the external carotid is first removed to test the sutureline and then the common carotid clamp is removed so that if, by chance, there are any clots below this clamp, they will be blown up into the external carotid circulation. The internal carotid clamp is then removed and intravenous heparin drip is started. Hemostasis must be meticulously secured. A Penrose drain in the wound will reduce the edema in the neck which might embarrass respiration. Long-acting anticoagulants, such as Dicumarol, Hedulin, or Coumadin, are started immediately postoperatively and the heparin drip is discontinued when the prothrombin time is approximately twice normal. The long-acting anticoagulant is continued for two months, at the end of which time the patient returns for a postoperative arteriogram, and if this shows the artery to be patent and in good condition, the anticoagulant is discontinued.

Up to the present time (Table I), we have operated on 117 arteries in 101 patients. Fifty-two of these were totally occluded and retrograde flow could be obtained in only 25, so it was impossible to restore the circulation in 27 of these. This, of course, means that the operation was carried out too late in these 27 cases. In 65 arteries with severe stenosis, we obtained a retrograde flow in all cases, and we were able to re-establish the circulation in all of these. The circulation was restored in 90 arteries altogether.

TABLE I

SURGICAL RESULTS OF ENDARTERECTOMY

Number of patients operated		101
Number of arteries operated		117
Total Occlusions	52	
Retrograde flow obtained	25	
No retrograde flow obtained	27	
Severe Stenosis	65	
Retrograde flow obtained	65	
Circulation Restored		90
Postoperative Arteriograms		54
Arteries patent	49	
Arteries occluded	5	

Postoperative arteriograms have been done in 54 cases and in five of these the arteries were reoccluded—in these five, anticoagulants were not used. In seven additional patients (Table II) the arteries thrombosed postoperatively. These were proved by reoperation or at postmortem. In two cases a marked stenosis in the siphon was found and it was felt the thrombosis was probably due to an inadequate run-off. In one the artery kinked at the site of the endarterectomy, and in four the cause has not been determined.

TABLE II

CAUSES OF POSTOPERATIVE THROMBOSIS

No anticoagulants used	5
Inadequate run-off (stenosis in siphon)	2
Kinking of artery	1
Cause unknown	4
Total	12

Sixteen patients died in the postoperative period while in the hospital (Table III). Of these, 11 were due to infarction, eight of which occurred preoperatively and three postoperatively, two from a postoperative thrombosis, and one from an embolus. Four died of coronary occlusion and one from hemorrhage into the tracheotomy. The three postoperative infarctions and the hemorrhage were definitely attributable to the operation. It is possible the stress of the operation also caused the coronary occlusions. It is interesting to note that all of these patients were on anticoagulants at the time of their death.

TABLE III

RESULTS OF OPERATION

Postoperative Deaths		16
Preoperative Infarction	8	
Postoperative Infarction	3	
Postoperative Occlusion	2	
Embolus dislodged at operation	1	
Coronary Occlusion	4	
Hemorrhage into tracheotomy	1	

I should like to emphasize the futility of operating on any patient who has a global hemiplegia. Twenty-two such patients were operated on in this series (Table IV) and in only two was there any worthwhile improvement over and above what one might normally expect. These were operated three to four hours after onset of hemiplegia. It is probable that the operation should never be done in such cases more than three or four hours after the onset of hemiplegia, although it is extremely difficult to be certain that irreversible damage is present.

In my judgment, by far the most important result of this study has been that in 49 cases in which the circulation has been restored and proved open by postoperative arteriography, there has been only one patient who has had recurrence of her ischemic episodes. This emphasizes the necessity of operating on these patients before the artery is

hopelessly occluded and before permanent brain damage has occurred.

Considerable pessimism has been expressed by some concerning the futility of operating on patients who have a complete occlusion. At the first glance, our results of this group would seem to confirm this attitude. When the postoperative results in those patients in whom the circulation was

TABLE IV

RESULTS OF OPERATION

Patients With Complete Preoperative Hemiplegia	22
Recovery from hemiplegia	2
No change in hemiplegia	11
Died	9
Infarction	8
Coronary occlusion	1

restored are compared with those in whom the circulation was not restored, one finds very little difference. However, all of our mistakes were made in this group. Eight out of 10 postoperative thromboses occurred in this group, and I firmly believe that the results in this particular group can be improved.

One of the bright spots has been in the results of bilateral operation (Table V). There were 16 patients in whom both arteries were operated. Nine of these are now normal, but in three of these only one artery could be opened. This, however, was sufficient to afford adequate circulation to the brain. An additional patient is normal, but has had one transitory attack, three are significantly improved, two are unimproved and in neither of these was either artery opened. One has died, the cause of death being unknown.

TABLE V

RESULTS OF BILATERAL OPERATION

Normal (only 1 artery opened in 3)	9
Normal (with 1 transitory attack)	1
Improved significantly	3
Unimproved (neither artery opened)	2
Died, cause unknown (both arteries opened)	1
Total	16

Of course, the best results of all are in the patients with a single stenotic artery (Table VI).

TABLE VI

RESULTS OF OPERATION ON PATIENTS WITH SINGLE STENOSIS

Normal	28
Improved significantly	8
No improvement	4
Died	4
Total	44
Stenosis in patients with double lesions	21
Total	65

There were 44 patients in this group and in all, the circulation was restored. Twenty-eight are normal, eight significantly improved, four have shown no improvement, and four died.

In summary, therefore, carotid occlusive disease is relatively common and usually gives warning of its presence before permanent brain damage is sustained. If the diagnosis is made and operation is carried out before such brain damage has occurred and before the clot has organized in the artery, one can expect excellent results. ★★★

20 South Dudley

HOODLUMS AND HOSPITALS

The American Medical Association is warning state officials to beware of crime syndicates trying to go legitimate by getting into hospital financing. The problem popped up in Illinois where Chicago's Crime Commission has found that three proposed hospitals in the area were to be financed by hoodlum money. As a result, Chicago's Hospital Planning Council has asked for state laws tightening hospital financing requirements. Council director Karl S. Klicka said syndicate leaders are getting into the field in hope of improving their image and also because they make a nice profit. For although hospital deficits are a major national problem, Dr. Klicka said that a hospital could make profits "if it has no sense of public responsibility. All it has to do is maximize its income and minimize its expenses."

Management of Breast Carcinoma

BERNARD T. HICKMAN, M.D.
Jackson, Mississippi

Carcinoma of the breast continues to be a commonly encountered clinical entity with a high, long-term mortality rate. Statistically it has proved difficult to evaluate the role of various therapeutic approaches. The presently employed staging system and treatment policies at the University Medical Center are presented.

BREAST CANCER IS THE principal cause of death from malignancy in females, and data collected indicate that there has been no real improvement in the death rate from this disease during the past 25 years.[3, 5] In analyzing the varied treatment policies from different institutions, one finds that direct surgical attack continues to be the main line of defense in the so-called early breast carcinoma, with radiation and chemotherapeutic and hormonal technics assuming more importance as the disease advances. Statistical evaluation of treatment technics in breast carcinoma has proven extraordinarily difficult, especially when one attempts to compare the overall results from one institution using one technic against those from another institution using a different treatment policy.

Until recently there has been no uniform policy for the treatment of breast cancer at the University Medical Center. It is obvious, however, that such a policy is essential if the riddle of breast carcinoma statistics is to be solved. With this in mind, a standard treatment policy has recently been established for the Medical Center. It is proposed at this time to present this policy, with emphasis upon the clinical staging of the extent of the malignancy and the treatment plans for these stages.

Portmann's classification of breast carcinoma, which is universally accepted, is used at the university for clinical staging of the patients. The patients are staged jointly by a staff member of the department of surgery and a staff member of the department of radiology.

METHOD OF STAGING

The staging system now being utilized represents a combination of the classifications devised by Portmann[4] and Haagensen,[1] with each patient being placed in one of four groups. As will be noted, this staging includes both clinical and pathological evaluation of the extent of the disease process.

Stage I—On clinical examination the tumor is confined to the breast
- IA—Pathological proof that axillary nodes are *not* involved at the time of surgery
- IB—Pathological proof that axillary nodes *are* involved at the time of surgery

Stage II—On clinical examination palpable axillary nodes are detected on the side of the breast lesion
- IIA—Pathological proof that axillary nodes are *not* involved at the time of surgery
- IIB—Pathological proof that axillary nodes *are* involved at the time of surgery

Stage III—On clinical and/or pathological evaluation the disease process is felt to be beyond hope of cure by radical mastectomy.

In general, these criteria of inoperability, set forth by Haagensen, are employed:[1]

1. When the carcinoma is one which developed during pregnancy or lactation
2. When extensive edema of the skin over the breast is present
3. When satellite nodules are present in the skin over the breast
4. When intercostal or parasternal tumor nodules are present
5. When there is edema of the arm
6. When proved supraclavicular metastases are present
7. When the carcinoma is the inflammatory type
8. When distant metastases are demonstrated

From the Department of Radiology, University of Mississippi School of Medicine.

9. When any two, or more, of the following signs of locally advanced carcinoma are present:
   a. Ulceration of the skin
   b. Edema of the skin of limited extent (less than one-third of the skin over the breast involved)
   c. Fixation of the tumor to the chest wall
   d. Axillary lymph nodes measuring 2.5 cm., or more, in transverse diameter, and proved to contain metastases by biopsy
   e. Fixation of axillary lymph nodes to the skin or the deep structures of the axilla, and proved to contain metastases by biopsy

Stage IV—A miscellaneous group including those patients developing recurrences following initial therapy or who were inadequately treated when first seen

IVA—Localized recurrence, either in chest wall or adjacent nodal area

IVB—Distal metastases involving:
1. Soft tissues
2. Bone
3. Both soft tissues and bone

METHOD OF TREATMENT

All patients in Stages I and II are treated initially with a radical mastectomy of the Halsted type. In alternate cases, on the basis of random selection, surgery is followed by Cobalt 60 teletherapy to the supraclavicular, axillary, and mediastinal areas. In addition, the chest wall is treated with superficial radiation therapy.

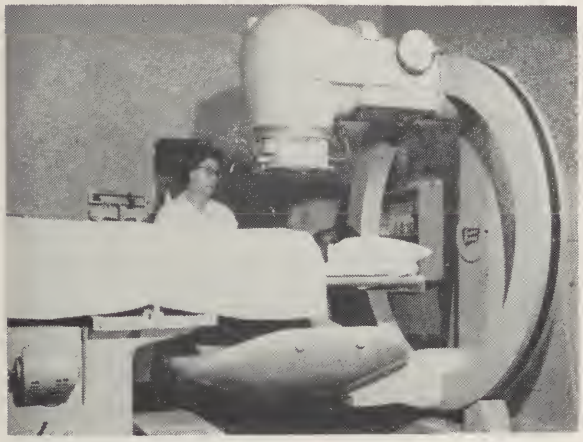


Figure 1. Cobalt 60 teletherapy machine with a patient in place to receive therapy.

Figure 1 shows a photograph of the Cobalt 60 teletherapy machine with a patient in place to receive therapy. Figure 2 shows a close-up view of the patient under the Cobalt 60 machine in position to receive therapy to the supraclavicular-axillary and superior mediastinal ports as indicated in the squares. A total dosage of approximately 4,000 roentgens is delivered to the region of the nodes in three to four weeks. The striped area on the patient's chest wall shows the skin area which is treated with superficial x-ray therapy. The skin receives approximately 2,500 roentgens in a period of two weeks. This dosage range has been found adequate to destroy the major portion of any residual tumor by UMC investigators as well as others.[2] Figure 3, an x-ray of the patient's chest with the superimposed Cobalt 60 teletherapy ports, shows the deep structures which are treated, and reveals that the first four rib interspaces are adequately covered. This is the site which has been described as containing the major portion of the positive internal mammary nodes. It is evident that very little normal lung tissue is irradiated, and it is exceptional to find any evidence of marked radiation fibrosis when this technic is used.

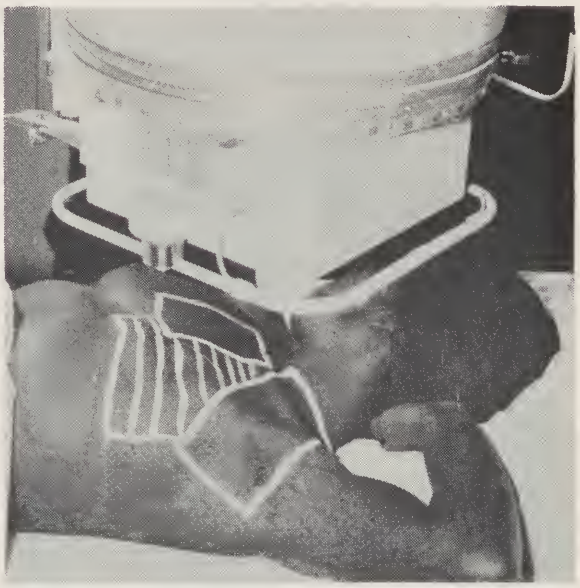


Figure 2. Close-up view of the patient under the Cobalt 60 machine in position to receive therapy to the supraclavicular-axillary and superior mediastinal ports as indicated in the squares.

Comparison of results between surgery with postoperative irradiation and surgery without postoperative irradiation is to be conducted only on the first group of operable cases, which fall into Stage I and Stage II.

The Stage III cases are subdivided into those that exhibit only local evidence of disease and those that have obvious distal metastases. Those patients with local disease only are usually treated with some type of "toilette" surgery or local irradiation. Frequently the supraclavicular-axillary and internal mammary node chains are also irradiated in this group. Those patients in Stage III which show distal metastases are again subdivided

into groups which have evidence of only soft tissue metastasis or only bony metastasis or into a miscellaneous group which may have both types of spread. Each case is evaluated individually as to the treatment method of choice—chemotherapy, hormonal therapy, irradiation or various combinations of these approaches. Surgical as well as medical hormone therapy is considered, with surgical hormone therapy encompassing oophorectomy, adrenalectomy, or hypophysectomy.

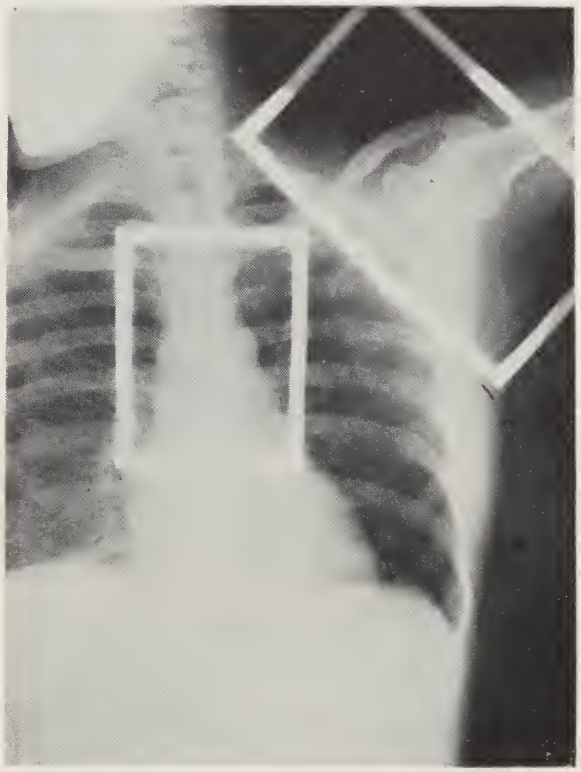


Figure 3. An x-ray of the patient's chest with the superimposed Cobalt 60 teletherapy ports shows the deep structures which are treated and reveals that the first four rib interspaces are adequately covered.

Stage IV includes those cases which were inadequately treated and/or which show evidence of recurrence. This group of patients is again subdivided into those with evidence of only localized recurrence or those that have distal metastases. These two groups are treated similarly to the comparable groups in Stage III.

SUMMARY

The treatment plan for management of breast carcinoma cases at the University Medical Center, Jackson, Miss. has been presented. It is intended primarily to separate the early operable cases from the late inoperable cases. It is also hoped that the random alteration of postoperative radiation therapy in Stage I and Stage II cases will help to evaluate the proper role of routine postoperative irradiation in the treatment of breast cancer. ★★★

2500 North State Street

The author acknowledges the assistance of Dr. Albert L. Meena of the Department of Surgery and Dr. Warren N. A. Bell of the Department of Clinical Pathology in devising the treatment plan.

REFERENCES

1. Haagensen, C. D., and Stout, A. P.: Carcinoma of Breast; Criteria of Operability, Ann. Surg. 118:859-1032, 1943.
2. McWhirter, R.: The Value of Simple Mastectomy and Radiotherapy in the Treatment of Cancer of the Breast, Brit. J. Radiol. 21:599-610 (Dec.) 1948.
3. Montgomery, T. L.; Bowers, P. A.; and Kittleberger, W. C.: Diagnosis and Management of Breast Cancer, Obst. & Gynec. 17:19 (Jan.) 1961.
4. Murphy, Walter T.: Radiation Therapy, Philadelphia, W. B. Saunders Company, 1959, pp. 514-587.
5. American Cancer Society, Proceedings of the Second National Cancer Conference, Vol. 1, 1952.

FAST CURE FOR FROSTBITE

Belief that frostbite should be treated by very slow warming has been challenged by Dr. William J. Mills, Jr., of Anchorage, Alaska. Dr. Mills reports he's gotten the best results from placing the frostbitten parts in water at 118 degrees. Discomfort from treatment is more than made up for by the fact that the patient is comfortable the following day, as he is not with the gradual method, tissue loss is reduced, and recuperation time is cut to a matter of seven or eight weeks.

Present Status of Viruses In Clinical Medicine and Public Health

RALPH B. HOGAN, M.D., and GERALD R. COOPER, M.D.
Atlanta, Georgia

The introduction of tissue culture as a laboratory tool in virology has made it possible to gain insight into the magnitude of the problem with which we are confronted in the field of viral diseases. More than 100 new viruses associated with disease have been identified during the last 10 years. Additional viruses are being discovered almost daily. These viral diseases present a challenge to both the physician in the practice of clinical medicine and the public health physician. The problems in diagnosis, therapy, prognosis, and prevention are equally perplexing. Infectious hepatitis is presented as an important example of a major viral disease of importance both in clinical practice and in public health.

INFECTIOUS HEPATITIS (hepatitis A), which usually affects between 30,000 and 50,000 persons annually, increased to epidemiologic proportions in the United States during the first four months of 1961.[22] This disease, either sporadic or epidemic, is considered a significant economic problem since it is often associated with long-term morbidity and debilitation rather than mortality. Clinical symptomatology and even laboratory tests cannot always distinguish diseases causing jaundice such as homologous serum hepatitis, leptospirosis, an infectious mononucleosis from infectious hepatitis. Accumulating evidence indicates a majority of individuals have infectious hepatitis without jaundice and sometimes without clinical symptoms.[18, 27] In certain individuals, posthepatitic cirrhosis develops, and here a high incidence of carcinoma of liver has been found.[11]

The complexity of the problem today can be summarized by saying that as yet there is (1) no specific test, (2) no proven isolation of the etiological agent, (3) no suitable experimental host, (4) no effective therapeutic agent, (5) no means to shorten the duration of symptoms or morbidity, (6) no knowledge of extent of damage, residuals or predisposition to liver embarrassment in older age, (7) no way to treat blood bank blood for eradication of the virus without damaging the blood, and (8) no general agreement as to minimum quantity of gamma globulin needed to prevent infectious hepatitis in contact cases.

VIROLOGY

Epidemiologic data and experiments on human volunteers suggest strongly that viral hepatitis is caused by at least two immunologically distinct viruses, one designated IH (infectious or epidemic hepatitis or hepatitis A) and the other one called HSJ (homologous serum jaundice or hepatitis B).[15] Tables 1 and 2 show some of the chief differential features between these two viruses and their associated diseases. Laboratory tests based on severity of nonspecific host responses, such as serum flocculation tests and transaminase determinations, add little to the differential diagnosis of IH and HSJ. Severe and complicated illnesses in both types of viral hepatitis occur more often in the newborn,[7, 14] young females,[10, 3] and elderly persons.[16] The clinical, immunologic, and epidemiologic characteristics of infectious hepatitis appear to be consistent with the existence of different species or strains of Hepatitis A, and homologous serum jaundice (Hepatitis B) appears to be a separate and distinct disease but closely related to infectious hepatitis.

Practically every laboratory method available has been utilized in attempts to detect and prop-

From the Department of Health, Education, and Welfare, U. S. Public Health Service, Communicable Disease Center, Atlanta, Georgia.

Read before the Section on Preventive Medicine, 93rd Annual Session, Mississippi State Medical Association, Biloxi, May 9-11, 1961.

agate the virus.[25] These include the use of common and uncommon experimental animals, chick embryos, other embryos, and a variety of tissue culture preparations. Until these viruses can be propagated in a suitable experimental host or tissue culture system, knowledge of microbiologic characteristics, a specific diagnostic test, and effective prevention and control methods are not likely to become available.

TABLE 1

DIFFERENTIAL PROPERTIES OF HEPATITIS A (IH AGENT) AND HEPATITIS B (HSJ AGENT)

	IH	*HSJ*
Size (filterability)	Passed	Passed
Stability (56°C., 30 min.)	Resistant	Resistant
Host	Man	Man
Transmission (major mode)	Oral	Parenteral
Viremia		
Incubation period	+	+
Acute phase	±	+
Convalescence	±	±
Virus in feces	+	–

The observed high resistance of infectious hepatitis to physical (heat) and chemical agents emphasizes the need for thorough sterilization of apparatus and instruments used in handling of infected specimens. This also makes it difficult to develop a practical method of treating human blood bank blood or blood products.

TABLE 2

DIFFERENTIAL CHARACTERISTICS OF INFECTIOUS HEPATITIS (IH) AND HOMOLOGOUS SERUM JAUNDICE (HSJ)

	IH	*HSJ*
Incubation (days)	15-45	60-180
Onset	Abrupt	Insidious
Fever	Common	Unusual
Age incidence	Children (5-15)	All ages
Secondary cases	+	–
Repeated epidemics	+	–
Seasonal incidence	Winter-spring	–
Carrier state		
Blood	Unknown	+
Feces	+ (possible)	–
Immunology		
Resistance after IH	+	–
Resistance after HSJ	–	–(?)
Passive resistance (Gamma Globulin)	+	–

EPIDEMIOLOGY

Infectious hepatitis results in sporadic cases, epidemics, and pandemics, and is not limited by geography or climate. It has been regarded as a disease of autumn and early winter,[15] but in recent years, peak incidence has been noted in late winter and early spring. It is considered a disease of children, with the highest attack rates between five and 15 years of age, and it is infrequently seen in adults over 30 years of age. Since case rates from viral hepatitis show seasonal rise and fall, and death rates show a relatively uniform distribution, reported cases apparently represent chiefly, infectious hepatitis, while recorded deaths appear to be principally caused by homologous serum hepatitis.[28]

Infectious hepatitis is a world-wide problem. It has been a scourge in Germany and other European countries, as well as nations of other continents.[13] Water-borne epidemics particularly have caused great concern in summer camps, school groups, institutions, and cities.[22] Military campaigns have suffered greatly and at times been unsuccessful because infectious hepatitis spread through the troops.[13]

In the United States, interest in this disease has increased considerably with the rising and sustained high incidence during 1960 and 1961. Seven years have lapsed since the last major epidemic in 1954, and this fits previous observations of cyclic epidemics repeating about every seven-10 years in Denmark.[28] A gradual increase in cases in the United States occurred in 1959 and 1960, with an explosive spread in early 1961. During the first 16 weeks of 1961, 28,633 cases were reported, compared to 12,377 for an average similar time period between 1956-60. Mississippi reported 621 cases during these first 16 weeks of 1961, compared to 138 cases in a similar period of 1960. The peak of 2,091 cases reported in the United States per week was reached during the week ending March 4, 1961.

Unusual adult age distribution of reported cases was observed in Mississippi and Alabama and in New Jersey. Seventy-seven cases in Mississippi and Alabama were traced to consumption of raw oysters tonged from a heavily contaminated river area. These oyster-related cases were chiefly adults, and many belonged to middle and upper socioeconomic classes. In New Jersey, hepatitis cases in 1961 revealed individuals 20 years old and younger accounted for only 21 per cent of cases, 32 per cent were 30-39 years old, and the

group 40 or over accounted for 27 per cent. A food mode of spread is suspected also in Mississippi. It is of interest that an oyster-related hepatitis epidemic has been reported in Sweden.[20]

DIAGNOSIS

Since no specific diagnostic test exists, diagnosis depends on clinical and epidemiologic histories supported by laboratory findings which rule out diseases such as leptospirosis and which show significant changes in transaminase, other liver function tests, and liver biopsy. The clinical course can include all or any of the following phases:

1. Preclinical: Usually one day of respiratory symptoms that precede and subside before usual symptoms
2. Acute: Nausea and vomiting, moderate temperature, malaise, abdominal discomfort
3. Icteric: Jaundice, severe malaise disappears, liver function tests increase and decrease
4. Convalescent: Decreasing symptoms and signs
5. Chronic hepatitis: Continuing symptoms and persistent abnormal laboratory findings

The frequency of symptoms and signs for one epidemiological study[18] is given in Table 3.

TABLE 3

FREQUENCY OF SYMPTOMS AND SIGNS IN AN INFECTIOUS HEPATITIS EPIDEMIC

Symptoms	*Per Cent*	*Signs*	*Per Cent*
Lassitude	84	Tender Liver	84
Abdominal discomfort	76	Hepatomegaly	80
Anorexia	72	Jaundice	51
Nausea	71	Dark urine	51
Fever	69	Light stools	22
Headache	60	Pruritus	18
Myalgia	56	Splenomegaly	8
Vomiting	49		
Loss weight	41		
Backache	34		

Laboratory procedures found elevated most frequently in children with infectious hepatitis are: thymol turbidity, serum bilirubin, and transaminase.[4] The usual liver function tests have been evaluated and found in most cases to change with infectious hepatitis.[31] The nonspecific transaminase reaction can be used as an aid to diagnosis of infectious hepatitis because it is usually elevated considerably more in this disease than in other illnesses.[30] When determined with a high degree of precision, the transaminase determination can apparently detect subclinical cases.[27] The statement has been made that correct diagnosis can be made in 98 per cent of infectious hepatitis cases when liver biopsy is used with history, physical examination, and appropriate laboratory studies.[12]

Laboratory tests can help in prognosis and detection of complications. Poor prognosis has been associated with persistently elevated gamma globulin and flocculation tests, low mucoproteins, and abnormal ratio of bile acids.[21, 5] Extent of intrahepatic obstruction can be estimated from daily determinations of urinary urobilinogen.[31] Laboratory tests now available cannot determine the presence of homologous serum jaundice (HSJ) in blood bank blood.[23, 2]

CLINICAL PROBLEMS

Major clinical problems in infectious hepatitis comprise differential diagnosis with diseases such as leptospirosis and homologous serum jaundice, detection and handling of complications and sequelae such as coma and posthepatitic cirrhosis, and therapy since no specific therapeutic agents are available. Severe illnesses in infectious hepatitis occur more frequently in the newborn,[7, 14] young pregnant females,[10, 3] and elderly persons.[16] Precautions advised for patient care include those recommended for handling infectious stools, equipment used in collection of blood from this particular patient, and contaminated patient clothing.

COMMUNITY PROPHYLAXIS

Since 1951, most of the studies on prophylactic effectiveness of gamma globulin against infectious hepatitis have indicated that a relatively small amount (about .01-.02 ml. per lb.) is a reasonable dose to prevent the disease.[29, 17, 9, 1, 18, 6] A recent study suggests at least three times this quantity is needed for effective prophylaxis in contacts.[19] These findings are especially interesting since another study observed high effectiveness in preventing disease in contacts with the low dosage of gamma globulin in one epidemic while in another epidemic only minimal effectiveness or failure occurred.[27]

This controversy may not become settled until the etiological agent is isolated and characterized. Because of limited available gamma globulin and since the majority of studies indicate high effectiveness of lower dosage, most investigators still recommend the use of lower dosage for close contacts.

Laboratory research has been directed mainly toward finding a way to isolate, identify, and characterize the etiological agent of infectious

hepatitis[26, 24, 8] and toward finding clinical diagnostic aids.[30, 4, 27] Reports have been presented recently that newly developed or modified tissue culture systems have permitted growth and cytopathogenic effects with viruses isolated from patients with clinically diagnosed infectious hepatitis. McLean and associates have used a modified Detroit-6 cell system,[26] O'Malley and Meyer, a rabbit kidney tissue system,[24] and Davis, a human embryonic lung tissue system.[8] This advancement is encouraging but warrants restrained optimism since long-term efforts will still be required to establish the identity of these isolates. ★★★

REFERENCES

1. Ashley, A.: Gamma Globulin: Effect on Secondary Attack Rates in Infectious Hepatitis, New England J. Med. 250:412-417 (March 11) 1954.
2. Bang, N. E.; Ruegsegger, P.; Ley, A. B.; and DaDue, J. S.: Detection of Hepatitis Carriers by Serum Glutamic Oxalacetic Transaminase Activity, J.A.M.A. 171:2302 (Dec. 26) 1959.
3. Bearn, A. C.; Kunkel, H. G.; and Slater, R. J.: Problem of Chronic Disease in Young Women, Am. J. Med. 21:3-15 (July) 1956.
4. Bodansky, O.; Krugman, S.; Ward, R.; Schwartz, M. K.; Giles, J. P.; and Jacobs, A. M.: Infectious Hepatitis: Correlation of Clinical and Laboratory Findings, Including Serum Enzyme Changes, AMA Am. J. Dis. Child. 98:166-186 (Aug.) 1959.
5. Carey, J. B., Jr.: The Serum Trihydroxy-Dihydroxy Bile Acid Ratio in Liver and Biliary Tract Disease, J. Clin. Invest. 37:1494-1503 (Nov.) 1958.
6. Clark, W. H.; Beck, M. D.; Edwards, G. B.; and Drake, R. M.: A Special Study of Infectious Hepatitis in the General Population of Three Counties in California, Am. J. Trop. Med. 9:639 (Nov.) 1960.
7. Craig, J. M., and Landing, B. H.: Form of Hepatitis in Neonatal Period Simulating Biliary Atresia, AMA Arch. Path. 54:321 (Oct.) 1952.
8. Davis, E. V.: Isolation of Viruses from Children with Infectious Hepatitis (Proposed publication, Science).
9. Drake, M. E., and Ming, C.: Gamma Globulin in Epidemic Hepatitis: Comparative Value of Two Dosage Levels, Apparently near the Minimal Effective Level, J.A.M.A. 155:1302 (1954).
10. Frucht, H. L., and Metcalfe, J.: Mortality and Late Results of Infectious Hepatitis in Pregnant Women, New England J. Med. 251:1094-1096 (Dec. 30) 1954.
11. Gall, E. A.: Primary and Metastatic Carcinoma of the Liver: Relationship to Hepatic Cirrhosis, AMA Arch. Path. 70:226 (1960).
12. Gall, E. A.: Henry Ford Hospital International Symposium on Hepatitis Frontiers, ed. by F. W. Hartman *et al.,* Boston, Little Brown Company, 1957, pg. 496.
13. Gardner, H. I.: A Note on the History of Epidemic Viral Hepatitis in Germany, Am. J. Med. 8:561 (1950).
14. Gruber, A. E.: Giant Cell Liver Cirrhosis in the Newborn, Geburshilfe and Frauenheilkunde 17:381-387 (April) 1957.
15. Havens, W. P., Jr.: Etiology and Epidemiology of Viral Hepatitis, J.A.M.A. 165:1091-1095 (Nov. 2) 1957.
16. Horstmann, D. M.; Havens, W. P., Jr.; and Deutsch, J.: Infectious Hepatitis in Childhood, J. Pediat. 30:38 (1947).
17. Hsia, D. Y.; Lonsway, M., Jr.; Gellis, S. S.: Gamma Globulin in the Prevention of Infectious Hepatitis: Studies on the Use of Small Doses in Family Outbreaks, New England J. Med. 250:417 (1954).
18. Kokko, U. P.; Schafer, I. A.; Eichenwald, H. F.; Donovan, G.; Karush, J. I.; and Outland, J. F.: An Epidemic of Infectious Hepatitis in Calloway County, Kentucky, J. Kentucky M. A. (Aug.) 1955.
19. Krugman, S.; Ward R.; Giles, J. P.; and Jacobs, A. M.: Infectious Hepatitis: Studies on the Effect of Gamma Globulin and on the Incidence of Inapparent Infection, J.A.M.A. 174:823 (1960).
20. Lindberg-Bromen, A. M.: Klinisha iskttageıser vid den s. k. ostronhepatiton, Svenska Lakartidnigen, 53:1003-1009 (1956).
21. Mandel, E. E.; Gorsuch, T. L.; and Cooper, G. R.: Seromucoid in Hepatobiliary Disease, Clin. Chem. 1:221-233 (Aug.) 1955.
22. Mosley, James W.: Water-Borne Infectious Hepatitis, New England J. Med. 261:703-708 (Oct. 1 and 7) 1959.
23. Norris, R. F.; Kassouny, D.; Reinhold, J. G.; and Neefe, J. R.: Persistence of Abnormal Hepatitic Tests in Carriers of Viral Hepatitis, J.A.M.A. 160:-1118-1121 (March 31) 1956.
24. O'Malley, J. P., and Meyer, H. M., Jr.: Antibody in Hepatitis Patients against a Newly Isolated Virus, Fed. Proc. 20 (1), Article 366, (March) 1961, p. 446.
25. Paul, J. R.: Symposium on the Laboratory Propagation and Detection of the Agent of Hepatitis, Publication 322, National Academy of Sciences, National Research Council, 1954.
26. Rightsel, A. A.; Keltsch, R. A.; Tekushan, F. M.; and McLean, I. W., Jr.: Tissue Culture Cultivation of Cytopathogenic Agents from Patients with Clinical Hepatitis, Science 124:226 (1956).
27. Schneider, A. J., and Mosley, J. W.: Studies of Variations of Glutamic-Oxalacetic Transaminase in Serum in Infectious Hepatitis, Pediatrics 24:367-377 (Sept.) 1959.
28. Sherman, I. L., and Eichenwald, H. F.: Viral Hepatitis: Descriptive Epidemiology Based on Morbidity and Mortality Statistics, Ann. Int. Med. 44:1049-1069 (June) 1956.
29. Stokes, J., Jr.; Farquhar, J. A.; Drake, M. E.; Capps, R. B.; Ward, C. S., Jr.; and Kitts, A. W.: Infectious Hepatitis: Length of Protection by Immune Serum Globulin (Gamma Globulin) during Epidemics, J.A.M.A. 147:714 (1951).
30. Wroblewski, F.; Jervis, G.; and LaDue, J. S.: The Diagnostic, Prognostic, And Epidemiologic Significance of Serum Glutamic Oxalacetic Transaminase (SGO-T) Alterations in Acute Hepatitis, Ann. Int. Med. 45:782 (1956).
31. Zieve, L.; Hill, E.; and Hanson, J.: An Evaluation of Factors Influencing the Discriminative Effectiveness of a Group of Liver Function Tests, V. Relative Effectiveness of Hepatitic Tests in Hepatitis, Gastroenterology 28:927 (1955).

Traumatic Corneal Ulcers

THOMAS W. WESSON, M.D.
Tupelo, Mississippi

In spite of modern antibiotics, central corneal ulcers still present a severe problem to the opthalmologist. The author presents four illustrated cases of traumatic corneal ulcer and discusses their management. He points out that steroids should not be used locally if the corneal surface is broken.

THE OPHTHALMOLOGIST WHO FIRST sees a patient with a central corneal ulcer is confronted with a medical emergency.

After the epithelial barrier has been broken down by trauma, allowing an ulcer to develop,

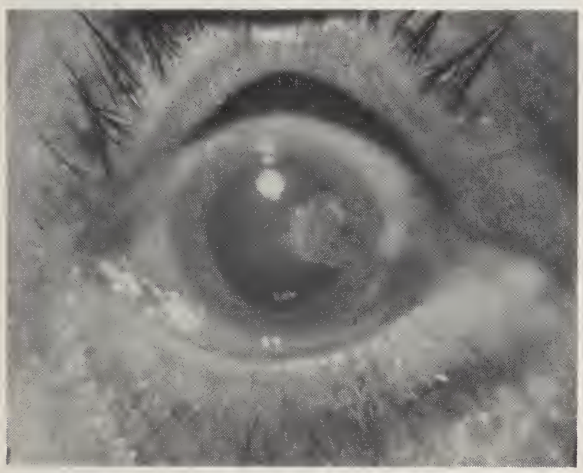


Figure 1

the causative organism is usually a pyogenic bacteria. With the recent increase in local use of steroid hormones, it may be a fungus.

Despite the prevalence of organisms in the cornea, cultures taken from the surface of the ulcer may show no growth. Suie[4] and workers from Ohio State University report positive cultures in only 18 of 50 central corneal ulcers.

Vaughan[5] emphasizes that material should be taken from the advancing border of the ulcer with a platinum spatula. Following the examination of the stained smear, a culture should be grown to confirm the type of organism and to test for sensitivity in the event the ulcer fails to respond properly to treatment.

CASE I

W.P., a 40-year-old white male, employee in a furniture factory, was struck in the right eye by hot glue on May 15, 1958. On the following day he saw his family physician who prescribed Neomycin-hydrocortisone solution to be instilled three times daily. After three days' use the eye became much worse. He was first seen by me on May 19, 1958, four days after the injury, with his eye appearing as shown in Figure 1.

Scraping from the ulcer revealed no organism and nothing was obtained on culture on blood-agar plates. Local treatment consisted of use of atropine and polymyxin B-bacitracin (Polysporin) ointment.

Two days later the ulcer was noted to have progressed to the center of cornea while healing over somewhat at the periphery (Figure 2). Chloromycetin (250 mg. every six hours) was begun orally. Five days later he seemed consid-



Figure 2

Read before the Section on Eye, Ear, Nose and Throat, 93rd Annual Session, Mississippi State Medical Association, Biloxi, May 9-11, 1961.

erably improved. There was no hypopyon and no staining (Figure 3).

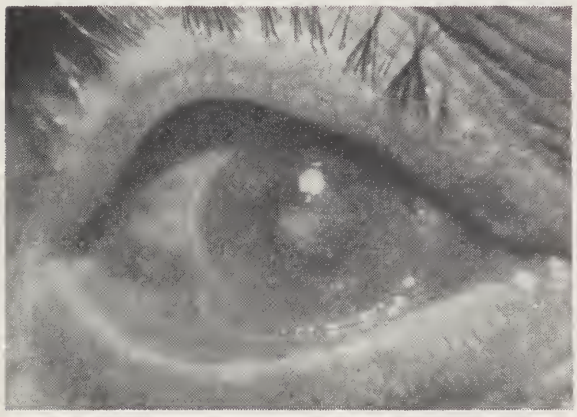


Figure 3

However, on May 28, nine days after he was first seen, there was marked increase in pain, ulcer stained again, and a severe iritis developed. There was a 3+ flare on May 29. Oral Prednisolone 10 mg. daily was begun. A rise in intraocular pressure was noted on June 2, requiring oral Diamox for one week.

By June 9, the ulcer was healed over, and all treatment was stopped on June 21. The appearance of the eye on Sept. 9 is as shown in Figure 4. The central scar reduced vision to 20/200. After discussion regarding corneal transplant, the patient decided not to have this done.

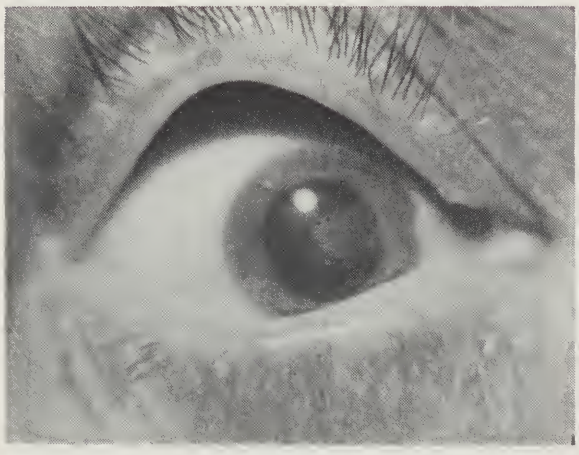


Figure 4

Comment: This patient received the inoculation of the organism either from the hot glue or from his own conjunctival sac. The local use of steroids may have contributed to the development of the ulcer. This eye illustrates the slow healing that occurs with this type ulcer.

CASE II

C.N., a 32-year-old white male, service station operator, was struck in the right eye by a gravel fragment on Sept. 25, 1958, at 10:00 a.m. That afternoon he consulted his druggist who gave him a tube of Butyn sulfate and Metaphen ointment to use for relief of pain. After using this through the night at frequent intervals, he consulted me on Sept. 26, some 28 hours after the accident. There was a definite ring abscess present (Figure 5).

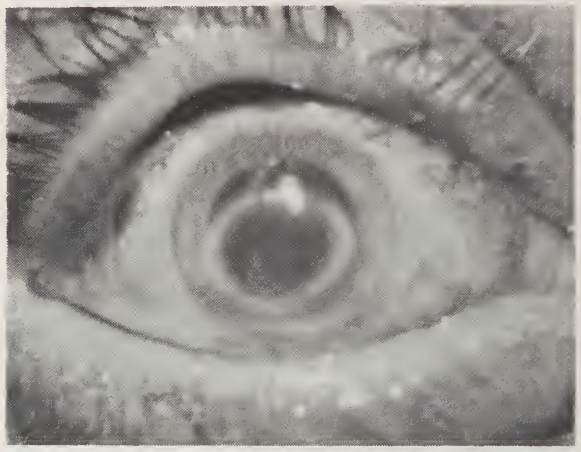


Figure 5

He was seen daily at my office for 45 days. Oral Gantrisin, 3 gm., and Chloromycetin, 750 mg., were given immediately. Gantrisin, 1 gm., and Chloromycetin, 250 mg., were given every four hours around the clock. The cultures taken on the first and second days revealed no growth, but the smears showed a rare gram-negative rod

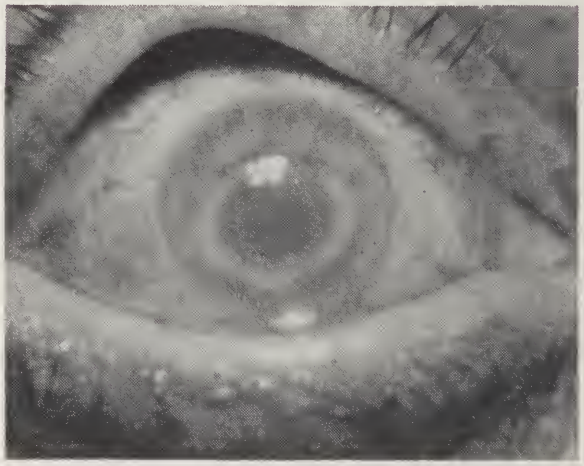


Figure 6

on the second day. Neosporin ointment was begun locally every four hours. Hypopyon was obvious by Sept. 27. Prednisolone, 30 mg. daily, was begun. The pupil was dilated daily with 10 per cent viscous Neo-Synephrine and atropine ointment. Typhoid antigen H injections were begun intravenously on Oct. 1, a total of 23 being given. Chloromycetin was given for 45 days.

Figure 6 shows the appearance of the eye on Oct. 4, five days after the first slide. The ulcer was somewhat worse. The patient's condition was also worse one week later on Oct. 11 (Figure 7). In preantibiotic days this type of eye was usually lost.

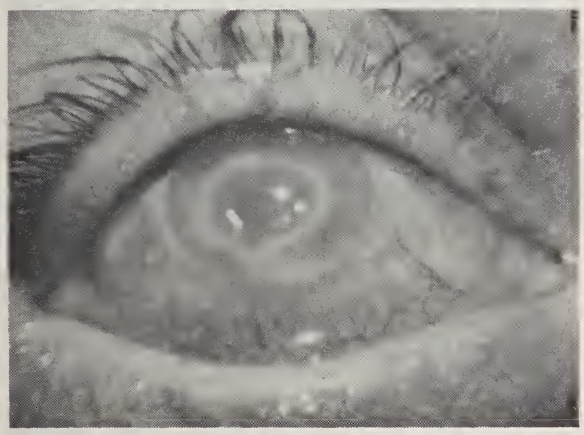


Figure 7

Gradual improvement occurred after Oct. 11. Chloromycetin dosage was decreased Nov. 1 with prompt recurrence of hypopyon. All treatment was discontinued Dec. 9.

Appearance of eye in March 1961, after corneal transplant by Dr. J. W. McKinney of Memphis, is shown in Figure 8.

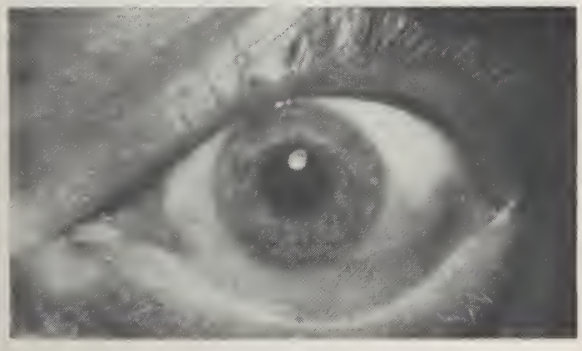


Figure 8

Comment: Bacteria were undoubtedly introduced into this cornea at the time of injury. The patient delayed seeking medical care, due to the relief obtained from the local anesthetic. Treatment in this case was of a "shot-gun" type due to necessity. This case illustrates the fact that eyes may be salvaged today which formerly would have been lost.

CASE III

V.K., a 17-year-old white male, got a rust particle in his right eye while hammering on a plow. The exact date of the injury was not re-

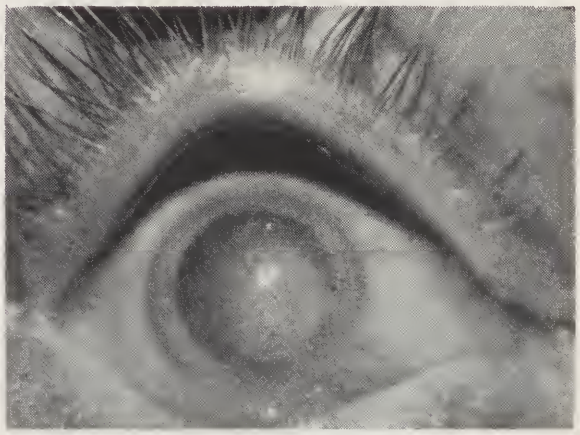


Figure 9

called. Due to the pain in the eye, he consulted an ophthalmologist on May 11, 1959. An ordinary type "rust-ring" was removed and the patient was advised to keep his eye patched for 24 hours. He was also given a steroid hormone ointment to use. This was used once on May 12 and four times daily on May 13, 14, 15, and 16. A "white spot" was noted on May 13. He consulted his family physician on May 16 and was referred to me on May 17. Figure 9 shows the appearance of the eye on May 17.

A culture and smear were taken but a diagnosis was not established until a pure culture of fungus was reported on May 20. Figure 10

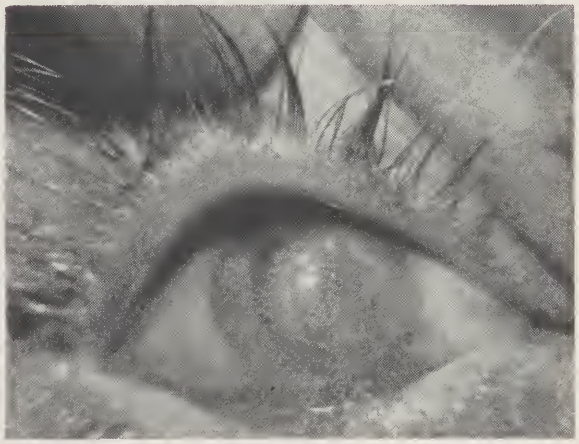


Figure 10

shows the appearance of the eye on May 20. At this time he was referred back to his own ophthalmologist for treatment. Fungus was identified many weeks later as a Cephalosporium. He was given oral Mycostatin and on May 28 a conjunctival flap was pulled up over the ulcer, which healed slowly.

The appearance of the eye some 30 days after a corneal transplant by Dr. Alston Callahan is shown in Figure 11. The final corrected vision was 20/30.

Comment: The proper treatment of these fungal ulcers is still a matter for study. Dr. Bedell[9] reported a cure of a Cephalosporium keratitis in 1946 with oral iodides. Dr. James Allen[8] and workers report two cases of Cephalosporium keratitis which were improved by topical use of ⅛



Figure 11

per cent copper sulfate solution. Most authorities agree that Mycostatin and amphotericin B are of no value locally but may be of considerable value when given systemically. Amphotericin B is so toxic when given systemically that Mycostatin probably is the drug of choice. At the present time I believe that a fungus ulcer should be treated by oral iodides, oral Mycostatin, topical copper sulfate, and perhaps copper sulfate by iontophoresis as suggested by Dr. Allen. The local use of steroids has been associated with an increase in fungous infections.

CASE IV

A 48-year-old Negro man, a timber cutter by trade, received a blow from an oak limb while at work in the woods on March 31, 1960. He developed a severe pain in his eye and was referred to me on April 2. No treatment had been given.

Figure 12 shows the appearance of the eye some 48 hours after injury. The smear revealed no organisms. He was given 750 mg. of oral Chloromycetin immediately, followed by 500 mg. every six hours. Chloromycetin drops were instilled every two hours.

On the following day, the culture revealed a heavy growth of a gram-negative rod. Pseudomonas was suspected, so that Polysporin oint-

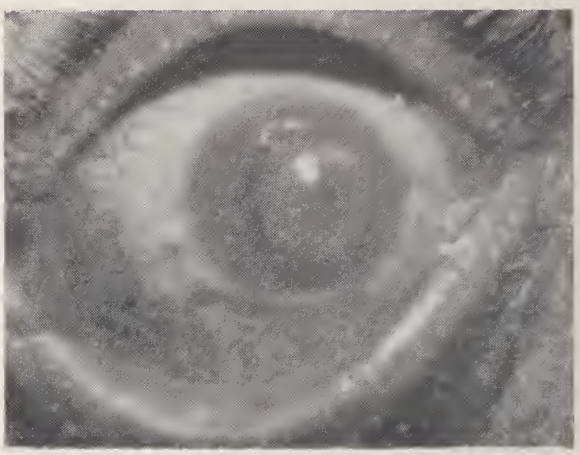


Figure 12

ment was begun topically to be instilled every three hours. The organism was Pseudomonas aeruginosa. Sensitivity tests on a blood agar plate showed the organism to be moderately sensitive to Chloromycetin and Tetracycline, slightly sensitive to sulfamethiazole (Thiosulfil), and resistant to kanamycin, streptomycin, sulfisoxazole (Gantrisin), triacetyloleandomycin, and polymyxin B.

Figure 13, made on April 4 (48 hours after



Figure 13

Figure 12) shows the ulcer to be no worse although hypopyon is still present. Healing was quite uneventful. There was no stain by April 11.

Figure 14 shows appearance one month later on May 6, 1950. Two months later the scar was thinner and vision in a dim light was 20/50. Patient did not want corneal transplant.

Comment: A severe corneal ulcer may result from trauma, even in absence of local anesthetics

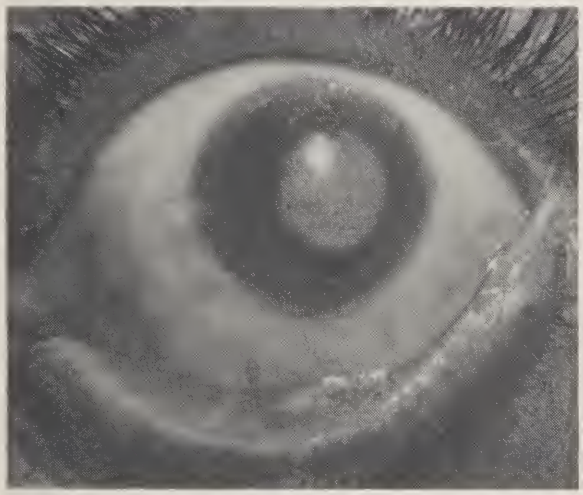


Figure 14

and steroid hormones. This patient illustrates the value of a culture and use of proper antibiotics.

SUMMARY

Four illustrative cases of traumatic corneal ulcer are presented. Despite modern antibiotics, these cases can still be a severe problem. I have not presented such procedures as paracentesis, cautery with iodine or trichloroacetic acid, the use of the thermophore, or corneal transplants. All of these are no doubt useful under certain circumstances, but are beyond the scope of this paper. Despite the limitation of antibiotics, I still feel that the proper treatment of these difficult cases depends on bacteriologic study so that the proper antibiotics may be used. Steroid drugs should not be used on the cornea if the surface is broken. ★★★

421 Main Street

REFERENCES

1. Hughes, W. F.: Office Management of Ocular Diseases, Chicago, Year Book Publishers, 1953, pp. 219-222.
2. Ley, A. P., and Sanders, T. W.: Fungus Keratitis, Arch. Ophth. 56:257, 1956.
3. Ley, A. P.: Experimental Fungus Infections of the Cornea, Am. J. Ophth. 42:59, 1956.
4. Suie, T.; Blatt, M. M.; Havener, W. H.; Sroufe, S. A.; and Balstad, P.: Bacterial Corneal Ulcers, Am. J. Ophth. 48:775 (Dec.) 1959.
5. Vaughan, Daniel G.: Corneal Ulcers, Survey of Ophthalmology 3:203, 1958.
6. Byers, J. L.; Holland, M. G.; and Allen, J. H.: Cephalosporium Keratitis, Am. J. Ophth. 49:267, 1960.
7. Cassady, J. V.: Pseudomonas Corneal Ulceration, Am. J. Ophth. 48:741, 1959.
8. Allen, James H.: Personal communication.
9. Bedell, A. J.: Cephalosporium Keratitis, Tr. Am. Ophth. Soc. 44:80, 1946.

INSTANT LOVE

"Instant love machines" are blossoming in Europe. The latest word in automatic vending devices is the brainchild of a West German matrimonial bureau, which has set up the machines in a half-dozen cities, on an experimental basis. Each machine has 12 glass-covered drawers and each contains a card that can be read free by the love-hungry customer. The card gives the age, physical characteristics, religion, hobbies of, a bona fide, agency-registered "lonely heart." If the customer is interested, he deposits two marks, pushes a button, gets a letter with more intimate details plus a picture. After that, he and Cupid are on their own.

A History of the Clarksdale and Six Counties Medical Society: 1902-1960

ROBERT RAY MCGEE, M.D.
Clarksdale, Mississippi

The 38-year-old mystery of why Clarksdale and Six Counties Medical Society has only four counties is solved in this history of one of the state's oldest and most active component societies. The author, who served as Society secretary from 1959 to 1961, hits the highspots in the organization's course from its founding in 1902 to its actions in 1960. In addition to the Society's activities, brief biographies of its leaders are presented.

THE CLARKSDALE AND SIX COUNTIES Medical Society, including the counties of Bolivar, Coahoma, Tallahatchie, Tunica, Sunflower, and Quitman, was formed in 1902. These counties had all been formed from territories acquired by the state in the Choctaw cession of 1830 (Treaty of Dancing Rabbit Creek) and the Chickasaw cession of 1833 (Treaty of Pontotoc). All except Sunflower and Quitman were established as counties in the 1830's. Sunflower was created a separate county from Bolivar in 1844 and Quitman was carved from portions of Tunica, Coahoma, Tallahatchie, and Panola counties in 1877.

POPULATION OF COUNTIES

Following the Civil War and the building of the Mississippi River levee system, there was a rapid increase in the population of the entire delta area. In 1900 the population of these six counties was 119,138 of whom 98,909 were colored and 20,229 white. The population of Clarksdale was 1,773, that of Charleston 480.

Around the year 1902 there was a general reorganization of the medical societies in the state. The State Medical Association was reorganized in 1903 along its present lines with councilor districts and component societies. Previously the structure of the state association had been very loose with each member holding his membership directly and paying his dues individually.

Presumably the organization of the Clarksdale and Six Counties Society in 1902 was in anticipation of the statewide reorganization. I have been unable to determine whether there existed prior to that time individual local societies in the Clarksdale and Six Counties area although it seems a reasonable inference that the Society may have been formed from an amalgamation of such pre-existing groups. The 1903 report of the secretary of the Mississippi State Medical Association shows 46 organized counties for the most part organized as individual units. The Clarksdale and Six Counties group was the only society containing more than two counties. There were four other societies that contained more than one. For a number of years this society continued to be the largest component group in the state.[1, 2, 4]

FORMATION DATE

Some confusion exists regarding the date of formation of the Clarksdale and Six Counties Society. Tradition has it that the Society was organized as stated in 1902, and the report which we have of the meeting of March 11, 1903, suggests that it was already a going organization at that time. However the first history of the Mississippi Medical Association published in 1910 states under the biographical sketch of Dr. H. L. Martin that, "When the Association reorganized in 1903, he organized the Clarksdale and Six Counties Medical Society and was one of its most influential members until his removal to Hot Springs in 1907." I am inclined to the view that the weight of evidence supports the traditional founding year of 1902.

The first president of the Clarksdale and Six Counties Medical Society was Dr. Morris J. Alexander of Tunica. Dr. Alexander was born at Taunton, Miss. on Aug. 30, 1857. He practiced for a time at Austin, served as county health officer, and from 1911 to 1913 was president of the State Board of Health. During 1912 and 1913 he served as chairman of the Section of Hygiene of the Mississippi State Medical Association. Dr. Alexander died on Sept. 21, 1916.

FOUNDING MEETING

I have been unable to find any records of the founding meeting of the Society in 1902. A report exists in the Society minutes of the meeting of March 11, 1903, and this report is quoted in its entirety:

> The Society met on Wednesday over Simmon's Drug Store with the president, Dr. Morris Alexander, presiding. Dr. L. D. Harrison, secretary, and Dr. J. W. Gray, treasurer, made reports.
>
> After a roll call of members, Dr. R. H. Speck of Hushpuckena read a paper on pneumonia. Dr. McMillan of Rosedale reported an interesting case of pneumonia which was discussed by Drs. Gray, Martin, and McElroy.
>
> The Society then adjourned until 8 p.m. During the remainder of the afternoon members were entertained in the home of Dr. J. W. Gray and a note of thanks was tendered that gentleman for his hospitality.
>
> Reconvening at 8 p.m. a paper on "Urethral Stricture" was presented by Dr. Martin. After an informal discussion the Society adjourned until the second Wednesday in June.[2]

Several of the physicians whose names are mentioned in the above report attained prominence in the state and the mid-south as clinicians and as leaders in organized medicine.

DR. E. H. MARTIN

Dr. Edward Hamilton Martin was born in Matthews County, Va., Feb. 28, 1865. Following courses at Lincoln University, Lincoln, Ill. he graduated in medicine from the College of Ohio in 1887. He married Miss Virginia Walton on Nov. 7, 1889. He served as councilor of the First District from 1903 to 1905 and again in 1906 and 1907. He served as president of the Mississippi State Medical Association in 1905-06. In 1907 he moved to Hot Springs, Ark. where he lived the rest of his life and gained wide reputation as a syphilologist.

Dr. James Basset McElroy was born in Columbus on Dec. 30, 1866. He received the degree of Bachelor of Science from the University of Mississippi in 1888 and graduated from the College of Physicians and Surgeons, Baltimore, Md., in 1893. In the following year he began practice in Stovall, Miss. He had an enthusiastic interest in scientific medicine and assembled in his office at Stovall a laboratory said to have been comparable to those available in large cities at that time. On two occasions during his period of practice in Stovall, Dr. McElroy returned to Baltimore for postgraduate courses at Johns Hopkins. In 1904 he moved to Memphis, Tenn., where he soon had a large practice and was associated first with the Memphis Hospital Medical College and later with the University of Tennessee. He was for many years professor of medicine at the University of Tennessee and served as chief of the division of medicine of the University and as chief of staff and physician in chief of the John Gaston Hospital. He died on March 24, 1943.[10]

DR. J. W. GRAY

Dr. J. W. Gray, who was the first treasurer of the local medical society, was for many years active in the affairs of organized medicine at the local, state, and regional levels. Dr. Gray was born in Holly Springs April 16, 1865. As an undergraduate he was licensed to practice medicine in Mississippi in 1887 and practiced in Myrtle from 1887 to 1889. He received the degree of Doctor of Medicine from the Kentucky School of Medicine in 1890 and from that time practiced in Clarksdale. He was councilor of the First District of the Mississippi State Medical Association in 1907 and 1908 and served as president of the State Association in 1908-1909. He was the father of the medical defense feature of the association. He also served as president of the Clarksdale and Six Counties Medical Society. In 1917 he was elected president of the Tri-State Medical Association (now the Mid-South Post Graduate Medical Assembly). He was a Fellow of the American Medical Association. Dr. Gray married Miss Margaret Roberts on Dec. 8, 1891. They had two children, James W., Jr., and Agnes. He was a member of the Clarksdale School Board and before the city adopted a commission form of government was alderman for a number of years. He was vice-president of the Bank of Clarksdale and junior warden of the St. George's Episcopal Church. He died Nov. 7, 1935.

Although his name is not mentioned in the report of the 1903 meeting one of the active early members of the Clarksdale and Six Counties Medical Society was Dr. H. L. Sutherland of Rosedale who served as president of the Mississippi

State Medical Association in 1902 and 1903. Dr. Hugh Lewis Sutherland was born April 27, 1848, near Canton and died at Benoit Feb. 18, 1915. He received his A.B. degree from the University of Mississippi in 1870 and his M.D. degree from Tulane in 1873. His entire professional life, except for the five years from 1878 to 1883 when he lived in Madison County, was spent in or near Rosedale. He was for many years the health officer of Bolivar County. He served as president of the Tri-State Medical Association in 1904-1905. He collaborated with Dr. E. F. Howard of Vicksburg and Dr. J. C. Hall of Anguilla on the first history of the Mississippi State Medical Association which was published in 1910.[4]

MEMBERS ACTIVE

A considerable hiatus exists in our knowledge of the activities of the local society from 1903 until 1920 because we have no minutes available of the meetings during those years. However it is apparent from the reports of the yearly meetings of the Mississippi State Medical Association that a number of physicians from this society were very active in state medical affairs during that time. Drs. J. W. Gray, E. H. Martin, H. L. Sutherland, M. J. Alexander, and James McElroy were often essayists at the state medical meetings during the early 1900's. Dr. McElroy, after he moved to Memphis, and Dr. Martin, after he moved to Hot Springs, frequently returned as guest speakers at the state meetings.

LARGEST SOCIETY

In 1912 the Clarksdale and Six Counties Society was still the largest medical society in the state. It had at that time 108 members. A member of the local society, Dr. S. W. Glass of Dublin, served as president of the State Medical Association for 1912-1913. The First District councilor for that year was Dr. T. M. Dye of Clarksdale who was also secretary of the Council. Among the chairmen of the various sections of the State Association were two members of the local society, Dr. M. J. Alexander of Tunica, who was chairman of the Section on Hygiene, and Dr. T. G. Hughes of Clarksdale, who was chairman of the Section on Physiology, Pathology, and Bacteriology.

Dr. S. W. Glass was born in Durant Oct. 24, 1873. He was graduated from the Memphis Hospital Medical College in 1889. He served as a member of the Lower House of the State Legislature from 1912 to 1916. He was at one time sheriff of Coahoma County. He practiced in Dublin until 1914 and later at Lyon.

In 1916 a member of the Clarksdale and Six Counties Medical Society, Dr. T. M. Dye, was elected president of the Mississippi State Medical Association.

DR. T. M. DYE

Dr. Thomas Melville Dye was born in DeSoto County Sept. 5, 1874. He was educated at Millsaps and at Tulane where he received his M.D. degree in 1900. He began practice at Florence and lived a few years each at Sherard and Longwood before settling in Clarksdale in 1909. Dr. Dye married Miss Mary Johnson of Jefferson County in 1901. He was for many years active in organizational and scientific activities of the state and local associations. He was elected councilor of the First District in 1909 and served in that office until made president in 1916. He was elected secretary of the State Medical Association in 1918 and continued to serve until Dec. 1, 1951. He was immediately named secretary emeritus, a position of honor which he occupied until his death on April 1, 1954.[1, 9]

52ND ANNUAL SESSION

The transactions of the 52nd Annual Session of the Mississippi State Medical Association, which was held in Hattiesburg May 13-14, 1919, indicate that the Clarksdale and Six Counties Society was still the largest in the state in membership, having at that time 122 members. Only one other component society at that time had six counties, but by then several of the component societies consisted of four or five counties. Dr. Dye, as noted, was state secretary at that time. Dr. W. D. Coker of Tunica was one of the three vice-presidents of the State Association. Dr. L. L. Minor of Hollywood was councilor of the First District.

1920-1930

During the decade 1920 to 1930 the Clarksdale and Six Counties Society was a large and active organization. A newspaper clipping from the Carnegie Library, Clarksdale, dated Nov. 4, 1920, gives the following report of one of its meetings:

Nearly 100 physicians including several well-known specialists attended the annual meeting of the Clarksdale and Six Counties Medical Association at the Elk's Club yesterday. Several interesting papers were read and after long afternoon and evening sessions the meeting closed with all hands adjourning

The cigarette that made the Filter Famous!



It's true. Kent's enormous rise in popularity—with all the attendant magazine and newspaper stories—really put momentum to the trend toward filter cigarettes!

So, Kent is the cigarette that made the filter famous. And no wonder. Kent's famous Micronite filter is made from a pure, all-vegetable material. A specially designed process at the P. Lorillard factory compresses this material into the filter shape and creates an intricate network of tiny channels which refine smoking flavor.

Kent with the Micronite filter refines away harsh flavor . . . refines away hot taste . . . makes the taste of a cigarette mild.

That's why you'll feel better about smoking with the taste of Kent.

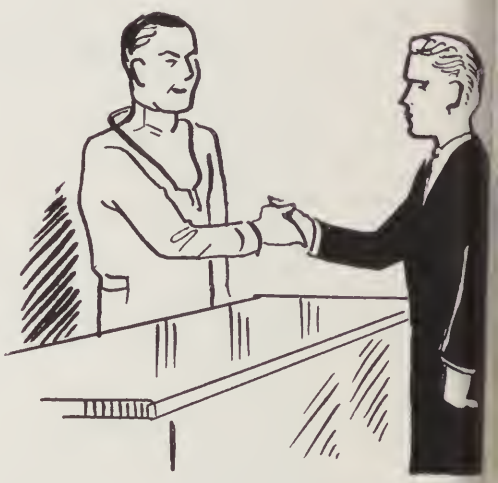
© 1961 P. LORILLARD CO.

A PRODUCT OF P. LORILLARD COMPANY · FIRST WITH THE FINEST CIGARETTES · THROUGH LORILLARD RESEARCH

To be of Service to the Medical

of

Dedicated service, linked with ethical pharmaceuticals of the highest standard, have won Abars the respect of the medical profession throughout Mississippi.



Today, Abars pharmaceuticals are available in all wholesale drug warehouses who serve the medical profession of Mississippi. All of Abars pharmaceuticals are advertised only to the profession . . . and meet the most exacting standards and requirements of State and Federal government regulatory agencies. Abars' own methods of quality control include its Medical Advisory Board composed of active practicing physicians—all of whom are past presidents of MSMA or the MAGP. The services of the nation's largest testing laboratory—Scientific Associates—are used, insuring the exacting standard set by the management and the Medical Advisory Board.

Profession

Mississippi is our greatest Ambition

One of abars' outstanding products is . . .

PYRABAR

- Gives PROMPT RELIEF Of Most Urinary Complaints
- STOPS PAINFUL BLADDER SPASM
- DOES NOT PRODUCE KIDNEY DAMAGE

ACTION AND USES:

Phenylazo-Diamino-Pyridine HCL is widely used for its local analgesic effect on the urogenital mucosa which contributes to the prompt and effective relief of distressing urinary symptoms. Sulfacetamide is one of the most soluble and least toxic of the sulfonamides. Natural Belladonna alkaloids to relax spastic smooth muscle, relieve pain and encourage normal bladder emptying. Pyrabar gives prompt relief of most urinary complaints—whether symptoms are due to infection, a local irritation, nervous bladder spasm or some combination of the three.

FORMULA: Each Tablet Contains:

Phenylazo-Diamino-Pyridine HCL	50 mg.
Sulfacetamide	250 mg.
Hyoscayamine Sulfate	0.05185 mg.
Atropine Sulfate	0.0097 mg.
Hyoscine Hydrobromide	0.00325 mg.

DOSAGE: Orally, adults 4 tablets initially then 2 tablets 4 times daily after meals and at bedtime.

SUPPLIED: S. C. dark red—Bottles of 100 and 1,000

abars ETHICAL PHARMACEUTICALS

MEDICAL ARTS BUILDING • JACKSON, MISSISSIPPI

NEW comprehensive digestant with the *most potent* enzyme available for digestion of



—also unsurpassed potency for digestion of starch, protein and cellulose

—the *only* digestant with Lipancreatin,* proven superior to Pancreatin N.F.

—the *only* digestant with fat-splitting lipase activity 12 times as great as that of Pancreatin N.F.

When the question is digestion because of your patient's inability to handle fat, starch, protein or cellulose, you can provide dependable relief with COTAZYM-B, which contains the essential pancreatic enzymes lipase, trypsin and amylase, plus bile salts and cellulase. A daily dose of 6 COTAZYM-B tablets is sufficient to emulsify and digest 50 Gm. of dietary fat, and to digest all of the protein and starch in a typical diet (100 Gm. protein, 250 Gm. starch) and 480 mg. cellulose.

Dosage: 1 or 2 tablets with water just before each meal.

Supply: Bottles of 48 tablets.

Write for samples and comprehensive literature.

NEW Cotazym®-B

Lipancreatin Bile Salts Cellulase

ORGANON INC., West Orange, New Jersey

Organon

**The Significance of Lipancreatin* (Pancreatic Enzymes Concentrated 'Organon')

A product of original Organon research, lipancreatin provides *for the first time in digestant preparations a known, constant amount of fat-digesting lipase* in addition to trypsin and amylase. It surpasses in assayable digestive activity *all* presently available pancreatin preparations.

to the beautifully decorated grill-room where an elaborate fried chicken supper was served.

MARCH 23, 1922, MEET

Another newspaper clipping dated March 23, 1922, reports on a meeting of the society as follows:

With attendance of 100 representatives from the Counties of Coahoma, Tunica, Tallahatchie, Bolivar, Quitman and Sunflower present the Clarksdale and Six Counties Medical Association met here yesterday afternoon and last night at the Elk's Club, the business session being followed with a banquet at the Alcazar Hotel which broke up about 1 o'clock.

Visiting physicians from Memphis were Drs. Eugene Johnson, J. A. Vaughn, Willis Campbell, Henry Hill, Robin Harris, A. D. Lewis, Dr. Wallace, W. M. Simpson, W. L. Howard and E. M. Holder. From Greenville there were present Drs. Paul Gamble, Payne, Thompson, and Montgomery. Numbers of papers were read and addresses were delivered as follows: "What the Public Expects of the Medical Profession" by Dr. A. J. Brown of Mattson, "A Clinic" by Dr. A. W. Rhyne of Coahoma, "Malaria" a paper by Dr. D. H. Raney of Dublin, "Report of Three Interesting Surgical Cases" by Dr. Hugh W. Priddy of Charleston, "Full-term Ovarian Pregnancy" by Dr. T. G. Hughes of Clarksdale, "Some Observations of Chronic Lymphatic Leukemia" by Dr. Thomas J. Crofford of Charleston, and a paper on "Goiter" by Dr. Eugene Johnson of Memphis.

SUNFLOWER WITHDRAWAL

In 1922 Sunflower County withdrew from the Clarksdale and Six Counties Medical Society and was formally organized as a separate component society. The following year, 1923, the counties of Washington, Leflore, Sunflower, Humphries and South Bolivar surrendered their charters to the Council and requested that they be formed into an association known as "The Delta Medical Society." This request was granted and the Delta Society was formed that year.[7] However, for many years thereafter members from Bolivar County continued to be active in the Clarksdale and Six Counties Medical Society, and subsequently several men from that county were elected president of the local society. A vice-president of the Clarksdale and Six Counties Society from Bolivar County continued to be elected each year until 1956. Since then no vice-president has been elected from that county. As best I can determine, the delegate to the State Association from Bolivar County has been elected by the Delta Society since the original separation. This is definitely true since 1935.[2] At the time of this writing there remains only one member from Bolivar County in the local society.

The meetings of the society during the 20's consisted of an afternoon session at which scientific papers were presented followed by an evening session which included the business meeting and the presentation of additional scientific papers and concluded with a banquet. The local members were usually well represented on the scientific programs along with guest essayists from Memphis, Greenville, and elsewhere. Often a large contingent of guests and speakers from Memphis would attend the meetings. A typical scientific program is that of March 24, 1926, which lists the following papers:

"Treating Malaria With Intravenous Quinine" by Dr. J. L. Nichols of Alligator.
"Ectopic Pregnancy" by Dr. J. W. Ellis, Coahoma.
"Pneumonia" by Dr. T. F. Clay, Tutwiler.
"Intestinal Obstruction" by Dr. Andre Carney, Fort Smith, Ark.
"A Case Report" by Dr. T. J. Crofford, Charleston.
"Focal Infections of the Head" by Dr. Cameron Montgomery, Greenville.
"Mobilization of Joints With Bony Ankylosis" by Dr. Willis Campbell, Memphis.

FLOOD OF 1927

In 1927 there occurred the great Delta flood when the Mississippi River levee broke at Scott, Miss. For four months, half the Delta was covered with water. This event is reflected in the following excerpt from the meeting of March 24, 1927: "The 47th session was convened at 2:30 p.m. in the Elk's Club with a very limited attendance due to high water."

Illustrating the character of the sessions of the Society at that time is the following report of the meeting of Nov. 6, 1929:

The 55th semi-annual session of the Clarksdale and Six Counties Medical Society convened at 2:30 p.m. in the Elk's Club in Clarksdale with the president, Dr. H. G. Johnson of Dundee, presiding. Dr. D. V. Galloway was secretary. Papers were presented by the following: "Tularemia" by Dr. H. L. Shannon, Clarksdale; "Dysentery" by Dr. D. O. Pierce, Jonestown; "Acute Intestinal Obstruction" by Dr. S. D. Robinson, Clarksdale; "Injuries and Diseases of the Membrani Tympani" by Dr. D. H. Griffin, Clarksdale. The Society then recessed until 7:30 when they reassembled for a business session. Officers for the next year were chosen. The members then heard the president's address followed by papers by Drs. J. W. Gray, Clarksdale; W. T. Pride, Memphis; H. G. Rudner, Memphis; Tom Mitchell, Memphis; Andre Carney, Clarksdale, and R. W. Hooker, Mem-

phis. The members then went to the Yellow Lantern at 11:30 for a banquet following which the Society was declared adjourned at 1:30 a.m.

I am impressed by the stamina of the members in those days. They attended a long afternoon session, followed that with a long evening session, and continued with a banquet until 1:30 a.m.

1930-1940

During the 1930's regular semi-annual meetings of the society continued to be held and a review of the minutes of the meetings during that decade indicates that well-rounded scientific programs were presented with frequent participation of local members as well as guest essayists. The character of the programs is indicated by the following list of some of the papers presented. From the meeting of Nov. 2, 1932:

"The Care of the Infant and Preschool Child" by Dr. E. C. Mitchell of Memphis.
"The Present Trend in Public Health" by Dr. Felix J. Underwood of Jackson.
"A Motion Picture Study of the Heart in Health and Disease" by Dr. Lyle Motley of Memphis.

From the program of Nov. 8, 1933:

"Legal Medicine" by Ed Smith, Clarksdale.
"Classification and Treatment of Anemia" by Dr. Conley Sanford, Memphis, Tenn.
"Cancer of the Larynx" by Dr. W. L. Simpson, Memphis, Tenn.
"Hay Fever" by Dr. I. W. Barrett, Clarksdale.
"Sterility" by Dr. W. H. Brandon, Clarksdale.

From the March 25, 1936, meeting:

"Sodium Evipal as an Intravenous Anesthetic in Surgery" by Dr. J. L. Levy, Clarksdale.
"Immunity and Immunizations" by Dr. H. F. Garrison, Jackson.
"A Case Presentation" by Dr. A. W. Rhyne, Coahoma.
"The Incidence of Syphilis Among Applicants for Positions in One Industry as Demonstrated by the Wassermann Test" by Dr. H. C. Ricks, Jackson.
"The Use of X-ray in the Treatment of Acute Infections" by Dr. H. D. Gray, Memphis.
"Some Cytologic Changes in Allergy" by Dr. I. W. Barrett, Clarksdale.
"Some Phases of the Diarrheal Disorders in Children" by Dr. Tom Mitchell, Memphis, Tenn.

Social and economic affairs as well as scientific matters received the attention of the society during the 30's. On several occasions it took action relative to indigent care, state aid hospital plans, and insurance plans for medical care.

At the Nov. 8, 1933, meeting a unanimous vote was received on a motion to merge with the Delta Medical Society. A committee on ways and means was named. Apparently there was subsequently much discussion of this but the merger was not effected.

At the meeting of Nov. 2, 1934, an unusual resolution was presented. The following excerpt from the minutes of that meeting is quoted: "The secretary presented the petition of Mrs. W. C. Poole, president of the State Auxiliary, to the effect that the doctors pay one dollar in addition to the Medical Society dues, the same to be given to the local auxiliary. A motion to this effect was made but was unanimously defeated."

1940-1950

The decade 1940 to 1950 in the history of the Clarksdale and Six Counties Medical Society was ushered in with the 76th semi-annual session on April 3, 1940. The meeting was held in the American Legion Hut with Dr. L. B. Austin presiding. Dr. E. Leroy Wilkins made a motion that the physician's wives be invited to attend the banquet sessions, to begin with the November 1940 meeting. The motion was passed. For the nearly 40 years that the Society had existed the banquet and other activities of the Society had been sacrosanct from feminine intrusion so this motion represented the beginning of a new era.

Among the essayists at that meeting were: Dr. W. W. Hollihan, Memphis; Dr. Julius L. Levy, Clarksdale; Dr. E. Leroy Wilkins, Clarksdale; Dr. V. P. Philpot, Houston; Dr. Lacey Biles, Sumner; Dr. W. H. Brandon, Clarksdale, and Dr. Harwell Wilson, Memphis. It is interesting that Dr. Brandon's discussion was on socialized medicine, evidently already a specter to organized medicine.

In 1942 a member of the Clarksdale and Six Counties Medical Society was again elected president of the Mississippi State Medical Association.

Dr. E. Leroy Wilkins served as president of that organization for the term of 1943 to 1944. Dr. Wilkins was born Oct. 14, 1889, at Lewisberg, Miss. He received his M.D. degree from Memphis Hospital Medical College (now the University of Tennessee) in 1911. He was in general practice for two and one-half years at Winterville and Batesville, Miss. He entered the field of eye, ear, nose and throat practice in 1914 with Dr. O. Dulaney at Dyersburg, Tenn. He had postgraduate work in this field at the Chicago Eye, Ear, Nose and Throat College, the Laboratory of Surgical Technique, Chicago, Washington University, St. Louis, and Gill Memorial Hospital, Roa-

noke, Va. He was certified by the American Board of Otolaryngology in October 1941. Dr. Wilkins served 18 months in World War I, 11 months of this overseas with base hospitals number 50 and number 208. He returned to private practice in September of 1919 at Clarksdale where he has practiced since. Dr. Wilkins married Miss Claire Elder of Cockrum, Miss. on Dec. 26, 1912. They have two daughters. Dr. Wilkins has been extremely active in affairs of the local and state medical associations, serving in many posts of responsibility in both organizations. He has been active in the American Legion and in child welfare work.

With the first meeting in 1940 a change in the make-up of the programs was effected in that the evening program was limited to a single talk presented in conjunction with the banquet. At the March 8 meeting of 1944 the Clarksdale and Six Counties Society passed a resolution endorsing a four year medical school for the State of Mississippi. A typical meeting of this period in the history of the society is illustrated by the minutes of the meeting of March 24, 1948, which are quoted *in toto:*

The 92nd semi-annual meeting of the Clarksdale and Six Counties Medical Society met in the council room of the City Hall, Clarksdale, Wednesday, March 24, 1948. The meeting was called to order by Dr. P. R. Googe, president. Delegates to the state medical meeting were chosen: Coahoma County, Dr. Guy R. Post, Clarksdale; alternate Dr. George C. Furr, Clarksdale. Tunica County, Dr. T. K. Chandler, Tunica; alternate Dr. W. W. Nobles, Tunica. Tallahatchie County, Dr. Lacey Biles, Sumner; alternate Dr. J. G. Backstrom. Quitman County, Dr. J. P. Walker; alternate Dr. E. A. McVey. Discussion: General Practice Award. Dr. T. G. Hughes was chosen as nominee from our society. The following program was presented: "Infectious Hepatitis, Diagnosis and Treatment," Dr. J. D. Hughes, Memphis, Tenn.; "Treatment of Acute Nephritis in Children," Dr. J. G. Hughes, Memphis, Tenn.; "Orthopedics in General Practice," Dr. Marcus Stewart, Memphis, Tennessee. An informal dinner was held at 7 p.m. at the Country Club with members of the Ladies Auxiliary. Rehabilitation work was discussed by W. P. Bobo of Greenwood.

1950-1960

From 1950 to 1960 the general character of the semi-annual meetings followed the pattern set in the decade 1940 to 1950, with afternoon scientific and business sessions followed by a banquet in the evening. Membership in the society which had been gradually declining over the years remained relatively stable through the 50's, averaging approximately 60 members. This compares with a membership in the first 20 years of the society's history which often exceeded twice this number. During the 50's there was increasing discussion at the meetings and activity by the society on social and economic matters. In the early 50's the constitution of the society was changed and a ruling which had existed for many years prohibiting the president of the society from being elected from Coahoma County was abrogated. The first president from Coahoma County following this change was Dr. E. L. Wilkins for the term 1954-1955. The second president from Coahoma County following the change in the ruling was Dr. W. W. Barnard for the term 1958-1959.

AMA MEMBERSHIP

During the early 50's the society repeatedly expressed opposition to the proposal which made membership and payment of dues in the American Medical Association a requisite of membership in the State Medical Association. However in spite of this opposition that change in the membership requirements of the State Medical Association was effected.

At the meeting of Nov. 12, 1952, the society voted unanimously to add the title and duties of "Grievance Committee" to the Board of Censors. It also designated the secretary to serve as chairman of a public relations committee, to call such members to help as he saw fit.

At the March 23, 1953, meeting the Clarksdale and Six Counties Medical Society endorsed the action of the physicians in Quitman County in asking for fluoridation of public water supplies.

A resolution was passed by the society at the 104th semi-annual session in March 1954 supporting the attitude of the American Medical Association in regard to the treatment by Veterans Administration hospitals of nonservice connected disabilities. In substance, this resolution expressed opposition to increasing and perpetuating hospital and medical care for veterans with nonservice connected disabilities. At this same meeting the society approved a change in the constitution increasing the dues from $1.00 to $5.00 per year. A motion was also passed directing the president to appoint a committee to investigate the state-aid program for indigent care and make recommendations to the delegates to the state convention in regard to action aimed at correcting deficiencies and abuses in the program. The committee was appointed and recommendations were made to the delegates. The Council of the State Associa-

tion opposed the recommendations and because of this no action was taken by the State Association.

At the instigation of Dr. George Furr the delegates to the state convention in 1957 and again in 1958 were instructed to seek appointment of a committee on Water and Air Pollution. This eventually resulted in the appointment of such a committee by the State Association.

At the March 25, 1959 meeting the society voted to instruct the delegates to recommend at the state convention that a State Medico-Legal Advisory committee be appointed. This recommendation was presented by the delegates but was rejected by the state convention.

A reawakening of interest in the local society has been reflected in an increased attendance at the semi-annual meetings during recent years. ★★★

150 Yazoo Avenue

Author's note: This history was made possible to a considerable extent by the work of Dr. Durward Blakey who during his tenure as secretary of the Clarksdale and Six Counties Medical Society assembled much of the material on which it is based. Dr. Blakey credits Drs. T. M. Dye, J. G. Backstrom, E. L. Wilkins, and T. G. Hughes with assisting him in preparing that material. Dr. Backstrom is the only surviving founding member of the society.

REFERENCES

1. Howard, Ewing Fox: History of the Mississippi State Medical Association, ed. 2, revised and brought up-to-date by James Grant Thompson, 1949.
2. Minutes, Clarksdale and Six Counties Medical Society.
3. Newspaper Clippings, Carnegie Library, Clarksdale, Miss.
4. Howard, Ewing Fox; Hall, J. C.; and Sutherland, H. L.: The History of the Mississippi State Medical Association, 1910.
5. Transactions, 45th Annual Session, Mississippi State Medical Association, Jackson, April 9-11, 1912.
6. Transactions, 52nd Annual Session, Mississippi State Medical Association, Hattiesburg, May 13-14, 1919.
7. Transactions, 56th Annual Session, Mississippi State Medical Association, Vicksburg, May 8-9, 1923.
8. Underwood, Felix J., and Whitfield, R. N.: Public Health and Medical Licensure in the State of Mississippi, 1798 to 1937, Jackson, 1938.
9. Dye, Thomas W.: Personal interview with author.
10. Tullis, I. Frank: Personal communication to author quoting the book *The Midsouth and Its Builders*, available in the University of Tennessee Library, and giving data on Dr. James McElroy from the University of Tennessee files.

BREAKFAST WITH SANTA

The day is gone forever when no more was asked of Santa than that he show up on the night of Dec. 24. *Insider's Newsletter* reports that during the past Christmas season a number of suburban shopping centers lured women to the stores by tempting the kids with: "Boys and Girls! Come have breakfast with Santa!" Not only was Santa on tap for breakfast (orange juice, raisin bread, and jelly, hot chocolate or milk, gift from Santa and a lollipop, all for 35 cents), but he was booked for two shows a day ("See Santa sing and dance") on weekdays and five performances on Saturday. As if that weren't enough, in at least one suburban town (Somerville, N. J.) the local Chamber of Commerce arranged for poor old Santa to jump out of an airplane, parachute to the local baseball field, and then spend the rest of the day giving out presents in front of the court house.

Clinicopathological Conference XXIV

Conducted by the Department of Pathology
University of Mississippi School of Medicine
Jackson, Mississippi

Clinicopathological Conference XXIV begins the third year of CPC presentations in Journal MSMA. The Journal is indebted to the Mississippi Association of Pathologists and especially to Dr. Kenneth M. Heard of the Mississippi Baptist Hospital and Dr. Catherine G. Goetz of the University of Mississippi School of Medicine for these monthly features.

The January discussion concerns an 11-month-old white boy who was admitted to the hospital with diarrhea, dehydration, and anuria. Guest discusser is Dr. Bernard Black-Schaffer of the Department of Pathology, the University of Cincinnati Medical School. University participants are Drs. Joel G. Brunson, Darrel Smith, and Gussie Huggins.

Dr. Joel G. Brunson: "Today's case will be discussed by Dr. Darrel Smith, Department of Pediatrics."

Dr. Darrel Smith: "As usual, we will cover the protocol and point out some things that may be pertinent. I hasten to add that in reading the protocol I did not see the reason for this child's sudden demise as apparently our staff did not.

"This was the first UMC hospitalization for a 11-month-old white boy who had passed little urine for two days. He had, we assume, been completely well until three weeks prior to this admission when he developed a "cold" and was treated with a liquid antibiotic for two to three days. I am sure that the need for an antibiotic for a "cold" could be questioned.

INITIAL SYMPTOMS

"The symptoms diminished, and he was well until eight days prior to admission when he developed diarrhea and a low grade fever. This diarrhea was fairly severe, and progressed to a dysenteric type with five to six watery, foul, green, blood-streaked stools per day, not unlike those we see with Shigella and Salmonella infections. During this time the baby was supposedly still taking his fluids well and had vomited only one time. The mother, being a nurse and having some freedom with medications, treated the child with paregoric, Donnagel, kaopectate, and neomycin. This sort of symptomatic therapy for severe diarrhea is usually worthless, and to be condemned.

"After three days of diarrhea the baby was finally seen by his local doctor. He had lost from 22 to 19¾ pounds or 2¼ pounds which is approaching a 10 per cent weight loss. Since this usually represents a total body water loss, this baby had a moderately severe dehydration. I think one could question the statement that he had taken fluids well. At least they were inadequate to prevent a 2 pound weight loss. His doctor provided broader coverage to the mother's regimen by adding Mysteclin, an antifungal agent which contains amphotericin B and tetracycline. I don't know if the neomycin was stopped, but it probably does not matter. Feedings were limited to liquids and the baby improved. Stools decreased to two or three per day and he began taking skimmed milk. However, fever persisted, and he vomited on two or three occasions after feedings or medications.

SEVERE OLIGURIA

"Up to this point this is not a particularly unusual history for a child with diarrhea and dehydration, but it may have been complicated by the medications. Two days prior to admission, the mother noted that the child was not urinating and looked pale. I think in an 11-month-old child, one might notice severe oliguria or anuria quicker than in an older child, but even so, it is not unlikely that the child had had a decreased urinary output for sometime before it was noted.

CPC / University of Mississippi

"He was admitted to a Laurel hospital where clyses were begun with D_5W and half-strength normal saline. He received 1000 cc. the first day and 500 the next. This would have given the baby good sodium and chloride replacement (10.5 mEq/kg.), but as we will see, in the absence of renal function, the water was quite excessive. The baby had a 10-15 minute generalized convulsion that began with a twitching of the left eye. I suppose that hypocalcemia tetany was considered since calcium gluconate was added to 500 cc. of M/6 sodium lactate. The latter would have given the baby another 83 mEq. of sodium. I think all of this is important, because later we find that the sodium was terribly low, and he began to appear puffy.

"Serum electrolytes obtained at this time revealed a low chloride, low sodium, high potassium, and an NPN of 116. This is a fairly brisk elevation of the NPN for only two days anuria. In view of the fact that he had become edematous from the 2 liters of fluid received prior to these studies, one wonders if the azotemia had not been present for considerably longer than two days. Another 500 cc. of one-half normal saline was started on the baby, and on four occasions paraldehyde was necessary to control seizures. He became progressively more edematous and because of this was digitalized and given 0.5 cc. Mercuhydrin. Congestive heart failure must have been considered, but later we do not find signs that would confirm this.

"Because of the mounting complexity of things the baby was referred to the UMC. Right off hand it is obvious that when you put 2-2½ liters of water in a short time into a 10 kg. baby that is not urinating, he is going to retain a considerable amount because his skin, respiratory, and stool losses could not begin to accommodate that much water. I think we see this very clearly in the physical examination.

PHYSICAL EXAMINATION

"This baby had generalized edema and apparently looked moribund. He was comatosed with no response to painful stimuli. Pulse was 110 and respirations 28. A blood pressure of 120/70 for a 11-month-old boy is equivocal. We record a lot of blood pressures on 1-year-old infants who are approaching this level initially, but when taken ideally and repeatedly they are definitely lower as far as the diastolic pressure is concerned, something around 50 or 60 mm. Hg. is in the normal range. Again, I will assume that this blood pressure was repeated several times and represents the general range during the baby's hospitalization.

"His weight was 25 pounds, 4 ounces, which would be a 5 pound increase over his low weight of five days before, or 3 pounds over his normal weight. This is a marked increase in total body water reflecting the degree of overhydration of approximately 14 per cent mentioned earlier. The remainder of the physical exam is not particularly outstanding, but some of the negative points may be helpful.

"The fontanel was not bulging, in fact, it was flat. The abdomen had no significant abnormalities. I think this is very important, and I hope that the examiner did check carefully for flank masses. In fact, the absence of palpable renal masses is a significant differential point. The neurologic exam was abnormal but perhaps not more so than you would expect in a child who had several recent convulsions and had been given paraldehyde. The last part of this exam, 'markedly edematous with a nonpitting type of edema,' somewhat throws me. There are not many causes for nonpitting edema in a child. We think of myxedema, scleroderma, and a few other odd things. I prefer to doubt that this was nonpitting edema.

LABORATORY DATA

"At this point certain laboratory data is available. Even without it, the history and appearance of the baby would make one suspect that, regardless of the nature of the underlying disease, the baby now has severe water intoxication. I think this is subsequently demonstrated very well. In addition to the fluids mentioned, the baby had also received a transfusion of an unknown amount. If this were a standard transfusion, it would be about 20 cc. per kilo and this would have added to the total fluid received which would be over 3 liters in 48 hours, in a baby that was not voiding.

"The hemoglobin was 12.2 gm. per cent which is extremely good considering the degree of water intoxication that was suspected. There was leukocytosis of nearly 28,000 with a left shift. This may indicate infection, on the other hand, it is a frequent occurrence with azotemia. A CO_2 of 14 mEq/L would reveal a moderate decrease in the alkaline reserve. The chloride of 75 is very low, and there is a hyperkalemia of 7.2 mEq/L. This is quite striking and approaching a dangerous level especially in view of the hemodilution. A sodium of 110 mEq/L is extremely low, and we rarely see this degree of hyponatremia, except in instances of water intoxication. A BUN of 126 mg. per cent is somewhat higher than that reflected by the NPN of 116 mg. per cent two days before. The serum osmolarity of 282 in view of

this severe azotemia is also very striking and again reflects the marked degree of water intoxication.

DIFFERENTIAL DIAGNOSIS

"A number of conditions must be considered in the diagnosis of an anuric child. Some of the urinary tract anomalies that are seen in the newborn period such as renal agenesis and severe hypoplasia will not be considered in this baby. Also in the older child, there are almost as many conditions that should be included in the differential diagnosis of uremia as there are in adults.

"To be more specific, in the case of a 11-month-old boy, it is quite true that obstructive congenital anomalies of the lower urinary tract are a frequent cause of severe renal insufficiency, and it is not too unusual for a child to develop very well for a year or so then have an infection followed by renal insufficiency which is progressive and often fatal. Against this diagnosis in this case is the absence of abdominal masses suggesting a lower urinary tract obstruction. At this point may I ask if a catheter was passed into the bladder early in the hospitalization and was the bladder empty? Was any urine collected?"

Dr. Gussie Higgins: "A catheter was inserted and there were only a few drops of urine obtained. This had a pH 6, albumin 4+, negative glucose, 20-35 white cells, 0-6 red cells."

Dr. Smith: "Certainly in boys, a posterior urethral obstruction is a common thing, and this may often be ruled out by a check of the residual urine. In this infant there is no evidence of a bladder neck obstruction at least to a degree to produce anuria. One's thinking should turn now to some catastrophic damage to the vascular system of the kidney which can be at several levels, preglomerular, glomerular, and venous. Acute glomerulonephritis has occurred in infants under 2 years of age although it is very rare. I have seen one 18-month-old child with typical acute glomerulonephritis with anuria of three days' duration who spontaneously diurised and did fine. We cannot completely ignore the possibility that this baby may have had an acute episode of glomerulonephritis. He had a URI three weeks previously. Whether or not he had a sensitizing streptococcal infection, we do not know.

"It is interesting that in the young infants with glomerulonephritis there has frequently been a familial tendency, as there has been for familial nephrosis. Nephrosis can be considered, but we do not know that there was albuminuria, hypoalbuminemia, or hypercholesterolemia. Anuria is not a feature of the acute or initial phase of nephrosis, so I will leave that out of the differential diagnosis in this child.

"A definite possibility in any baby who is crawling and perhaps beginning to walk is that he may have picked up some poison which has produced a lower nephron nephrosis. The clinical picture of this highly fatal condition is similar to that seen in this baby, and the onset with diarrhea could suggest that any of a number of substances could have been accidentally ingested or administered. Included would be heavy metals such as mercury, lead, and arsenic. It is not likely he ate poisonous mushrooms. Just where all the medications given to this child fit in, I am not sure. Sulfonamides have been responsible for this syndrome, and it is possible that one or a combination of these drugs had such an effect. We must remember that he received a combination of neomycin, tetracycline, amphoteracin B, paregoric, atropine, hyoscyamine, hyoscine, and phenobarbital.

"Lower nephron nephrosis has been reported following several other conditions such as shock, crushing injuries, and hemolytic anemias, but none of these factors seem responsible here.

"We can go on to conditions that may be more likely in this baby. As mentioned, the fact that he had diarrhea may suggest poisoning. There may have been an irritation of the bowel from some poison eight days before he progressed to anuria. By the same token, we cannot be sure that he did not have diarrhea on the basis of early uremia. To continue with factors that may have damaged his renal vasculature, we should consider arteriolar necrosis such as occurs with periarteritis. I have seen a two-year-old child that died from rapidly progressing renal failure due to acute periarteritis that was believed to have accompanied a sensitivity to penicillin. Although the patient under discussion had a hemorrhagic rash around the perineum, this probably just reflects irritation from his diarrhea. There is no mention of other lesions that might suggest a generalized hypersensitivity and vascular disease.

POSSIBLE CONDITIONS

"A likely diagnosis for this child would be symmetrical or bilateral cortical necrosis. This condition is not as uncommon as perhaps formerly thought. In reviewing various causes of circulatory diseases of the kidneys in infancy and childhood, a number of cases of bilateral cortical necrosis in infants were found that fit the picture in this baby very well. Usually there is a sepsis or severe infection with diarrhea and marked dehydration. The condition is often undiagnosed prior to autopsy. In fact, some individuals feel that perhaps there is a stage that is so mild that there can be complete recovery, then a diagnosis can only be

made by serial needle biopsies and radiographs which later show calcification in the renal cortex. This baby may well have had just such a sequence of events with the diarrhea and severe dehydration. Exactly what happens is not clear but it appears that ischemia is produced by functional or structural changes in small renal arteries and arterioles. The lesions may be focal, but complete necrosis with variable hemorrhage is more common. A similar clinical picture occurs with acute glomerular thrombosis which seems to represent a complication of certain severe bacteremias.

"The next possibility would be that there had been some occlusal phenomenon of the renal arteries. This is most often due to emboli, usually arising from a ductus arteriosus. Our baby did not have a murmur of the ductus type and neither did he have peripheral signs of embolism such as gangrene. Again this would be a difficult diagnosis to make since the child would progress rapidly to anuria and uremia.

RENAL VEIN THROMBOSIS

"Next, thrombosis of the renal veins often follows the same sequence of events as bilateral cortical necrosis. This condition occurs in babies that have had severe dehydration, usually from diarrhea and sepsis. Usually there is a rapid enlargment of one or both kidneys that can easily be palpated. Gross hematuria often precedes anuria; for this reason it would be nice to know if the mother had seen anything suggesting blood in the urine at any time, since hematuria may be less prominent in the other conditions considered. Renal vein thrombi reportedly start in the small venules in the kidney and extend toward the larger veins. Apparently it is unusual to find a thrombus extending from the vena cava into the large radicles of the renal vein. There are instances of so-called primary thrombosis in which there is no preceding history of illness. In the secondary type it is not uncommon to find thromboses elsewhere, such as in the dural sinuses. The unilateral seizures which progressed to generalized seizures in our baby, could have been due to intracranial thrombosis. Lastly, I suppose there could be a diffuse hemorrhagic infarction of the kidneys without vascular thrombosis, but again this accompanies sepsis and clinically cannot be differentiated from renal vein thrombosis.

"Whatever the basic renal lesion, this child's management was severely complicated by water intoxication. Let us see what was done for it. Initially he was given 3 per cent sodium chloride, which corrected the serum chloride from 75 to 89 mEq/L, while the CO_2 dropped from 14 to 8 mEq/L. I do not quite understand this fall in the CO_2 combining power. Usually the administration of sodium chloride does not produce further acidosis. Perhaps the initial CO_2 of 14 was in error. Anyway he received more sodium as sodium bicarbonate. Despite the electrolyte replacement he remained anuric and continued to have a high serum potassium.

PERITONEAL DIALYSES

"On the night of admission intermittent peritoneal dialyses were begun. I would like to take exception to the statement that he was dialized because of the elevated BUN. I do not think this alone would be a valid indication for any form of dialyzing procedure; whereas uncontrolled hyperkalemia and water intoxication are excellent indications. As plainly demonstrated, with seven dialyses in 24 hours about 1100 cc. of excess fluid was removed.

"This is excellent and if you will notice, the baby awoke from his coma after the fifth dialysis and spoke to his mother. He continued to improve but remained anuric. On the morning of the second day of admission the BUN was down to 108 mg. per cent, the chloride still normal, the sodium 134 mEq/L, which is not bad, and the potassium was within the upper normal limits at 5.9 mEq/L. The serum osmolarity had gone up to 318 or about what you would expect for this degree of azotemia. The infant was given only basal fluid requirements this day.

"On the third day, the chemistries were about the same except that his potassium had gone up 0.8 mEq/L to 6.7 Because of this dialyses were resumed. We note that on the repeat dialysis the concentration of glucose in the dialyzing solution was 6½ per cent suggesting that this was an increase over the previous concentration. In the type of intermittent peritoneal dialysis in which there is no attempt to remove excess water we have been using a commercial polyelectrolyte solution, Peridial, with a glucose concentration of 1½ per cent. This can be varied depending upon the osmolarity of the patient. Since the patient's serum osmolarity was 318 at the beginning of the dialysis, the need for increasing the glucose concentration would have been obvious. A 6½ per cent glucose concentration would raise the osmolarity to about 600 mOsm/L which proved to be satisfactory since again after only a few dialyses another 750 cc. of excess fluid was removed.

"Peritoneal dialysis does not remove urea, excess electrolytes, and excess water with the speed of the artificial kidney, but it is relatively safe, easy to perform, and effective. The child tolerated

the last five dialyses well, but there was not the laudatory change in sensorium noted during the previous dialyses. Apparently the baby was thought to be sleeping normally, when two hours later respirations ceased, and he could not be resuscitated.

"The nature of the terminal episode is a complete conjecture. One might suspect that the dialysis procedure played a part in some way. However, I do not believe that the removal of water or potassium could have been rapid enough to produce shock or hypokalemia. There is always the possibility that a sick infant may vomit and aspirate. Also the baby may have had another convulsion that resulted in respiratory failure. This is a fascinating case. I doubt if we have enough clues to be sure just which catastrophe occurred to the infant's kidneys. My choices are narrowed down to bilateral cortical necrosis or bilateral renal vein thrombosis."

GUEST DISCUSSER

Dr. Brunson: "Well, this is a complicated case. I am delighted to say that we have a visitor to discuss it. Dr. Bernard Black-Schaffer, from the Department of Pathology, the University of Cincinnati Medical School, is here with us today. Dr. Black-Schaffer went to school in Vienna and has been, I suspect, practically around the world at least once. He was on the staff at the Medical College of Virginia for a while, at Duke University Medical School for a while, Yale University for a while, and now is at Cincinnati. Dr. Black-Schaffer has contributed a great deal to our understanding of lesions of this type and it is appropriate that he is here to discuss this particular case."

Dr. Bernard Black-Schaffer: "It is a pleasure to be here and I have enjoyed my day. I hope I continue to enjoy it after the CPC. Dr. Smith has done a very fine job. This child did indeed have cortical necrosis of the kidneys. The child also had a lesion of the large bowel which I think is of more than passing interest, and an acute necrotizing cystitis, perhaps associated with catheterization. There are also some alterations in the pancreas that are similar to those described by Baggenstoss as being characteristic of uremia, as well as an interesting lesion of the liver.

"Now, this is not an open and shut case, not by a long shot, despite the fact that we can put a name to a fatal lesion which would satisfy those who simply want to know what caused the death of the patient. Gross examination of the kidneys disclosed marked, focal cortical congestion. Cut surfaces of the organs revealed actual necrosis in these areas. Now this is the first interesting point because if this child was anuric for five or six days as a consequence of renal cortical necrosis one would expect a very ischemic appearance of the cortex. There were some smaller, clearly recognizable ischemic infarcts, but in general the organ appeared more hemorrhagic. However, we must not be misled by that. There is actual ischemia, or ischemic necrosis I should say, of the cortex in addition to hemorrhage. There were no occlusions of the renal veins or arteries.

"Microscopically, the necrosis involved large segments of the cortex. The glomeruli were markedly congested and contained hyaline thrombi. Similar appearing hyaline thrombi were present in the interlobular arteries. Now, this is rather unusual at this stage, or I should say at this stage of presumptive duration of this disease, and it is the first stumbling block we encountered in trying to work out the pathogenesis of this child's death.

"Dr. Smith suggested that there are nonlethal variants of this lesion. I would not agree entirely because if it is cortical necrosis then it is, I believe, fatal. However, it is true that in severe shock, which is reversible and perhaps associated with tubular necrosis, one will find distributed here and there these hyaline thrombi, but there is no significant degree of occlusion to interfere with the circulation through the kidney. Occasionally, one may even find a small infarct in the kidney but to speak of a reversible form of renal cortical necrosis is, I believe, not quite correct.

"Microscopic sections of the colon disclosed areas of hemorrhage and ulceration, a change localized to the lower sigmoid colon. The remainder of the bowel was entirely free of any recognizable lesions, grossly or histologically. The epithelium of the mucosa was necrotic, although not exfoliated, and this would indicate that we are dealing with a lesion associated with shock. The submucosal connective tissue in between was not necrotic, although there was a polymorphonuclear leukocytic exudate. There were changes in the small venules, however, and these commonly showed thrombosis.

HEMORRHAGIC INFARCTION

"Now this is a type of hemorrhagic infarction since ischemic infarction of the intestine actually does not exist in man except perhaps as we see it in a case like this, because this epithelium is characteristic of ischemic infarction. However, it is not the gut wall itself that is infarcted, it is apparently only the more metabolically active component, namely the epithelium. Other sections show that where the vessels begin their passage through the muscularis in these areas corresponding to these infarcts, this is fibrinoid necrosis and a marked cellular reaction. The cells are both polymorphonuclear leukocytes and monocytes.

We interpret this lesion as a secondary form of periarteritis nodosa, secondary to the renal lesion and what I thought was hypertension.

"It was interesting to hear Dr. Smith say that he thought this was a borderline blood pressure, and I wonder if there are any further blood pressure recordings because I believe this lesion is probably not more than a day or perhaps two

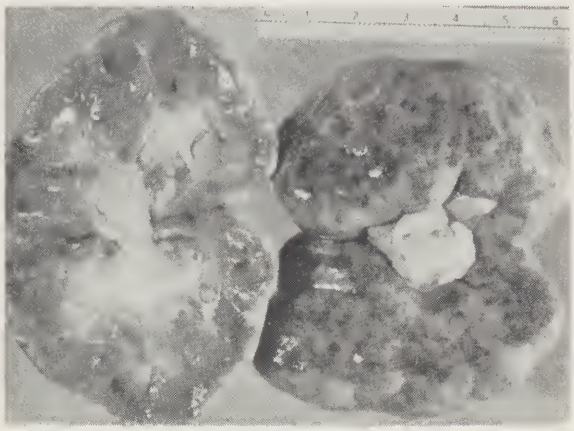


Figure 1. Photograph of kidneys showing scattered areas of cortical necrosis.

days old and represents a terminal event. The bladder showed marked congestion, hemorrhage, and polymorphonuclear leukocytes scattered throughout the hemorrhage. We saw no thrombi here and this kind of lesion is characteristic of

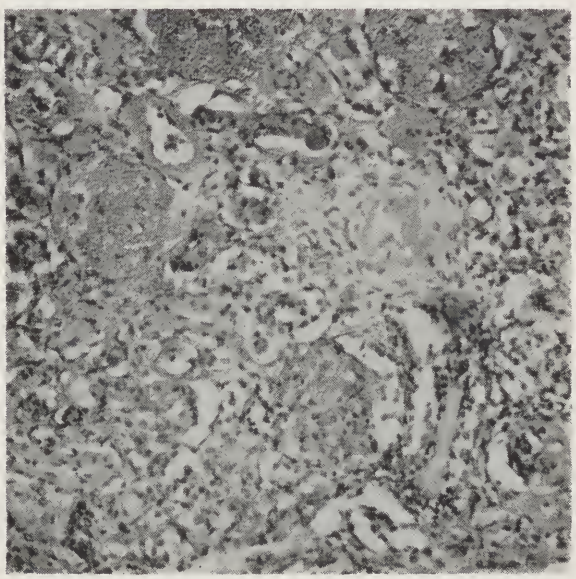


Figure 2. Photomicrograph of kidney showing congested glomeruli. Note hyaline material in interlobular artery.

an individual who has an erosion due to the presence of a catheter, although in a case like this it is not wise to shrug any lesion off.

"The liver showed interesting changes. Small hemorrhages were visible grossly under the capsule. On section these hemorrhages were seen to be scattered throughout the parenchyma, and were in association with foci of polymorphonuclear leukocytes with some necrosis. The latter was not particularly marked, but the congestion and hemorrhage were. I do not know what caused these lesions. If these sections were shown to a class of sophomore medical students who had been taught about eclampsia, they would probably say that is an eclamptic liver because that is essentially

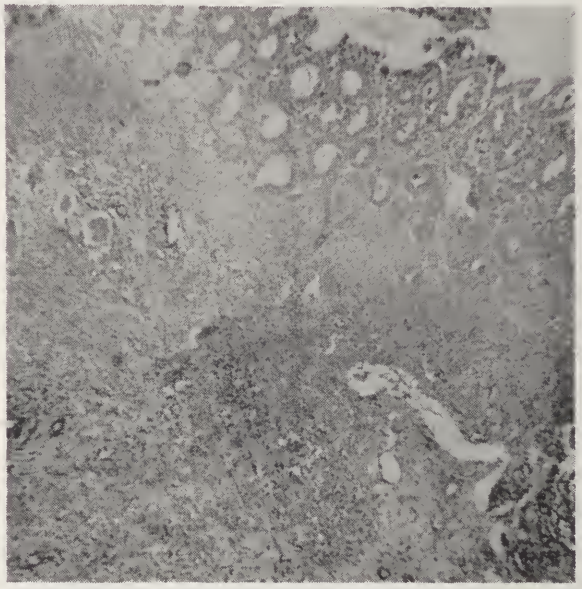


Figure 3. Section of large intestine. Note hemorrhage, inflammation, and necrosis.

what the appearance of the liver is in that condition. However, the lobular localization is not characteristic. The lesions in this case were sometimes in the portal areas and sometimes near the central veins and sometimes in between. Furthermore, there was no vascular fibrinoid component here, although we thought perhaps there might have been a vascular lesion underlying this. In the several sections, however, which were exhaustively studied, we found no evidence of a vascular lesion so that we must be content with calling this acute hemorrhagic hepatitis.

"As for the cause of cortical necrosis, if one postulates that it is a result of an episode of shock with an alteration in the dynamics of circulation in the kidney, then one must ask why it does not occur more frequently, since this is the same

mechanism which is utilized to explain lower nephron nephrosis. In actual fact, I think the explanation is true but it doesn't go far enough.

"All instances of severe shock are accompanied by a shunting around of blood through the kidney, so that the cortex becomes pale. One can actually see this experimentally when one manipulates a kidney by various methods. If this is sufficiently severe, then it may result in necrosis of the epithelium of the kidney, but I think few people realize how severe it must be to do this. If one occludes the circulation to a kidney for as long as three quarters of an hour under normal conditions and then releases it, there is albuminuria but there is never a picture, at least that I have been able to see, of lower nephron nephrosis. There is a degeneration and some necrosis of the epithelium but that is all.

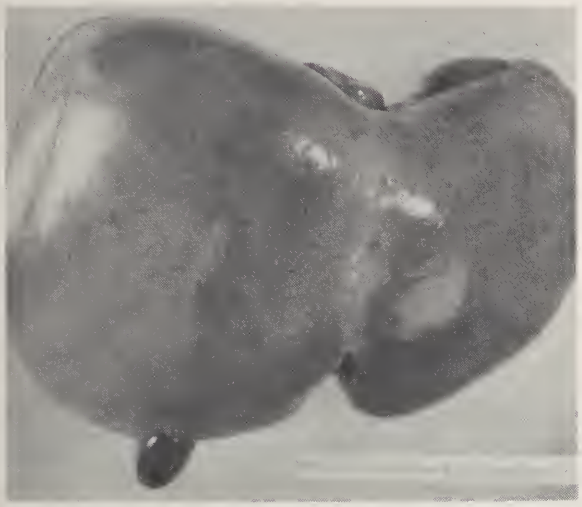


Figure 4. Photograph of liver showing numerous subcapsular hemorrhages.

"I have personally occluded the renal artery of a kidney for as long as three hours, loosening the clamp every 30 minutes for 20 seconds. At the end of that time, or I should say 24 hours later when I killed the animal, I found that the kidney showed complete necrosis of the tubular epithelium but completely intact glomeruli, vasculature, and connective tissue, so that shock must have a very severe effect upon the kidney in order to produce a clinically evident tubular necrosis or lower nephron nephrosis. This sequence of events, of course, cannot account for the cortical necrosis in this case because this patient should only have lower nephron nephrosis or tubular necrosis if what I have said is correct. We must also then postulate other, or additional mechanisms.

"In this respect Dr. Brunson has done a good deal of pioneer work in showing that there is an alteration in the coagulability of the blood leading to or producing the tendency to the formation of thrombi. Now, this is rather paradoxical because we know that in severe shock there is, if anything, a lengthening of the bleeding time and not a shortening. This is a heparin effect, and I think heparin-like substances have been demonstrated indirectly in shock, especially in the dog. But it is known, nevertheless, that heparin or heparin-like substances under certain circumstances can have a paradoxical effect, in that not only is there an increased bleeding time, but there is also the tendency to thrombosis.

"Time limits my discussion, but I would like to suggest that in this child for a multitude of reasons, including dehydration, that there was a shock episode to his kidney. Whether this was associated with a significant decrease in peripheral blood pressure I do not know, but there almost certainly was a renal shunt invoked here with the consequent inspissation of the blood in the cortex and a loss of plasma resulting in a rise in the hematocrit. In the areas where this occurred there probably was a shift toward the acid side, due to stagnation, thrombi occurred and these thrombi were the cause of the cortical necrosis. The lesion in the colon is, in my opinion, a consequence of a secondary periarteritis nodosa which was directly attributable to the renal lesion. The lesion in the bladder and in the pancreas I think are of no great consequence. I don't know to what extent I have illuminated this case but have done about all that I can." ★★★

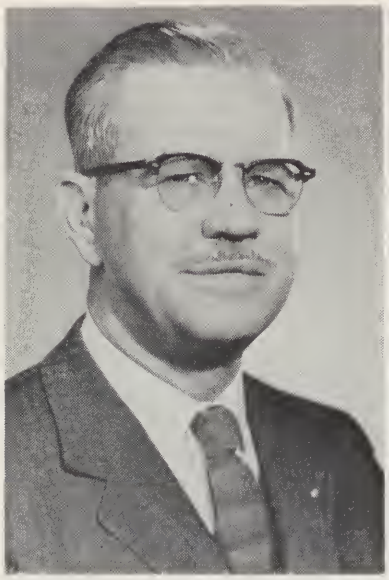
2500 North State Street

'SAY IT WITH . . .'

For months, Mrs. Jones complained of stomach pains so the doctor decided upon exploratory laparotomy. At surgery, he discovered a magnificent bouquet of American Beauty roses in her abdomen.

With disbelief, the surgeon exclaimed: "How in the name of common sense did those get in there?"

"Simple enough to find out, doctor," calmly observed the senior resident, "look at the card and see who they're from."



The President Speaking

'Every Doctor's Business'

LAWRENCE W. LONG, M.D.
Jackson, Mississippi

THE ASSOCIATION'S 1961-62 YEAR has turned the corner into the back stretch of activity. As our councils, committees, officers, and trustees set their respective sights on completion of programs and projects, they naturally think of their goal as the annual session.

Our 94th Annual Session will meet at Jackson during the period May 8-10, 1962, and it is likely that few if any state association meetings will seriously compete with MSMA's in scientific excellence. There are the seven scientific sections—EENT, General Practice, Medicine, Ob-Gyn, Pediatrics, Preventive Medicine, and Surgery—approximately 20 specialty societies, and a new scientific first, a Symposium on Space Medicine.

The three internationally known physician-scientists, Drs. Strughold, Stapp, and Simons, are probably the most knowledgeable individuals alive today in their specialties of bioastronautics and space medicine. Senator Stennis, a key member of the Senate Committee on Space, is without a peer in his overview of our nation's posture in the space effort. These outstanding leaders will make up our symposium speakers.

Through the cooperation of the National Aeronautics and Space Agency we will have an actual Mercury space capsule and its escape tower assembly as the focal point in our Scientific Exhibit. There will be adjunctive exhibits from the U. S. Aerospace Medical Center and School of Aviation Medicine, all presented and manned by physicians. The symposium will be held Wednesday morning, May 9, and there will be no other meetings at that time. It is a presentation which no member of MSMA will want to miss. It will offer scientific information not otherwise available to physicians about a medical endeavor in which there are few experts.

The association's business is *your* business and that's your reason for having all delegates from each component medical society present and participating in the House of Delegates. Every member will find something of personal professional interest in the program of the Scientific Assembly. The pace-setting 94th is every doctor's business. ★★★

JOURNAL OF THE
MISSISSIPPI STATE
MEDICAL ASSOCIATION

Volume III, Number 1

January 1962

EDITORIALS

Volume III, Number 1

BIRTHDAYS ARE USUALLY FAMILY SECRETS, especially after legal majority has been reached in the chronological aging process. Perhaps many members of the Mississippi State Medical Association will live to that day when their JOURNAL MSMA is a venerable citizen of the scientific press community whose age speaks for itself and whose reputation for excellence has become a household word in medicine.

But January 1962 marks a birthday of importance to our association because our JOURNAL enters its third year of life. It's difficult to realize that Volume III, Number 1 is the 25th consecutive issue of this young member of the American medical scientific press. With sufficient reluctance to qualify for minimum modesty, your Editor feels that he should speak up for the JOURNAL team, not with braggadocio, but with the objective of thanking loyal readers, generous authors, tireless laborers, enthusiastic advertisers, and skillful printers for making certain successes possible.

This combined effort has culminated in recognition achievements for our handiwork, but all should understand that the team deserves the plaudits rather than any individual. Our JOURNAL MSMA placed third in international competition with 670 technical and scientific periodicals in the annual evaluation sponsored by the International Council of Industrial Editors. More recently, the biennial conference of the State Medical Journal Advertising Bureau rated our JOURNAL eighth in the national field of 34 recognized state medical journals. In November, the Southern Council of Industrial Editors, meeting at a seminar in magazine journalism at the University of Georgia, handed JOURNAL MSMA more accolades for excellence in typographical format.

Although these honors are those of the association, they come to our JOURNAL only incidentally as it seeks fulfillment of its primary mission as a servant of medicine. Any recognition it receives seems simply to indicate that it is succeeding as a scientific communications tool. Thus, our goal and aspiration will be to improve the usefulness of your JOURNAL in a manner which best serves the physician.

Let none be reluctant to comment and advise, to suggest and criticize, or to admonish and inform. Your JOURNAL encourages budding authors and while standards of scientific worth and journalistic craftsmanship must be met, all will be afforded the same impartial and generous consideration when papers for publication are selected. Further, your JOURNAL strives for a personal viewpoint toward medical organization and physicians in Mississippi. In this sense, news items are welcomed.

We of the publishing team will feel that our goals are near when every member of the Association reaches first for his JOURNAL MSMA each month from among the many printed communications media he receives.

And why? If it were not for you, there would be no JOURNAL, no association and no medical organization dedicated to Mississippi's better health.—W.M.D.

Our Doctor Population—Too Big or Too Little?

Is there now or will there be in the decade ahead a shortage of physicians? *Yes,* say many responsible leaders in medical organization. *Yes,* echo dozens of medical educators. *Yes,* answer many knowledgeable physicians. *Yes,* replies just about everybody in the Department of Health, Education, and Welfare. *Yes,* proclaims every advocate of federal aid to medical education.

But before anyone takes JOURNAL MSMA to task for guilt-by-association practices, let it be understood that each responding group gives its affirmative for widely different reasons and nobody's sincerity is on trial. A vast majority of American physicians have the most profound respect for their organizational leadership at local, state, and national levels. Medical education merits and receives the same confidence and support. On many issues, large segments of medicine will debate HEW spokesmen and the federal-aiders receive no sympathy from MSMA's official voice.

But the question is valid, its asking is legitimate, and a reasoned response is due.

Historically, proponents of great expansion of the doctor population stand generally unvindicated today. In 1953, a respected figure in physical medicine and rehabilitation told an AMA audience that within three years, the physician shortage would be acute and the problem, insurmountable. The year 1956 came and went, but the nation's health appeared none the worse for want of physicians' services.

The Mississippi State Medical Association is the first to acknowledge that following World War II, a *maldistribution* of physicians existed, particularly in Mississippi. But the State Medical Education Board program supplied younger practitioners in ample quantity, new doctors located in the state from other regions, and Mississippians returned from military service. MSMA's 11-year-old Physicians Placement Service has seldom encountered anything reasonably resembling a physician shortage.

Yet, the *Johns Hopkins Magazine* states that there will be a grave deficit of physicians by 1975 unless the medical schools ". . . increase their output of physicians by 50 per cent—graduating 11,000 students annually instead of the present 7,400." The President's Commission on National Goals was quoted as having recommended ". . . a 50 per cent increase in medical school enrollments by 1970."

Clearly, both the estimates and facts are debatable. For example, proponents of great expansion point to the physician-population ratio or so many doctors per so many people. Such a ratio is entirely valid—provided the doctors and the people they serve are geographically isolated, say on the Island of Guam. It is substantially less valid when applied to the continental land mass of the United States because *medical care does not stop at geographical or political subdivision boundaries.* If it did, how long would the Mayo Clinic survive with its patient load confined to Rochester and immediate environs?

The doctor of today can do more for more patients than his predecessor. He has more with which to work in the way of surgical technic and the chemotherapeutic arsenal against disease. Better roads, faster transportation, and instantaneous communications are factors, too. If these facts were not valid, then we have too few rural mailmen. In 1920, there was a hue and cry for increasing the number of these public servants because of the mounting population. It is true that there were vast increases in the numbers of rural mail boxes as well as the annual volume of pieces of mail destined for each box. But, believe it or not, the number of rural mailmen fell from 43,455 in 1920 to 32,553 in 1950! The reason? Simple enough: New all-weather roads and the popular priced automobile.

And another thing about this physician-population ratio. When one speaks of ratios, he seldom says how the total of physicians is engaged. In the "old days" of lush ratios with greater numbers of doctors per population unit than today, only 5 per cent of the nation's medical population was engaged in research, full time teaching, preventive medicine, and institutional endeavor. Today the percentage is nearer one-third of the total *with fewer doctors per population unit* but with better care and longer life for all Americans.

So, can the question be answered accurately? Not precisely because any answer must be made in terms of present levels of scientific achievement and existing socioeconomic factors. By the time the prediction is due for assessment, each shall have changed. Therefore, let all be concerned as they are now but let all be reasonable and cautious in their utterances. After all, medicine in this nation has just one objective: To give the best medical care to all citizens toward the end of the longest possible, profitable life of health and productivity.—R.B.K.

Colorado: Top Leader In American Medicine

Confusion exists today among the public about the whole issue of medical care programs for the aged.

This statement, interestingly enough, wasn't made by an uninformed source: It was made by the American Medical Association in a document of limited circulation. And AMA made a strong case for public opinion studies, pointing out the pioneering work of the Colorado State Medical Society as an example to be emulated.

In a recent state-wide public opinion study, CSMS found that Coloradans are only vaguely aware of proposed measures for care of the aging —both sides of the coin, if you please. For example, although 59 per cent of those interviewed had heard or read something about Kerr-Mills or King-Anderson legislation, only 32 per cent knew that the Kerr-Mills program had been formalized into law under which many states are providing medical care for the aged who really need help with the full exercise of local prerogatives. On the subject of socialized medicine, one person in four had no clear concept of what the expression meant.

But the Colorado study was worthwhile. Eight out of 10 interviewed favored some form of publicly provided care for the aged but they were two to one *against* a compulsory federal program such as proposed in the King-Anderson bills. And a majority agreed with the sponsoring medical society that the Social Security mechanism for care of the aging, if enacted, would be a major step toward socialized medicine for all citizens.

Often a trail blazer in medical organization, the Colorado group has mounted a massive campaign to assure adequate care for all in need and to fight the King-Anderson program. The effort has been financed through a $50 per member assessment which has yielded the society treasury $80,000 with which to carry out the program. A seven member state committee directs the effort with assistance from an 11 member advisory committee and a county key man organization. The public opinion study was the first major expenditure—some $3,000—in the program.

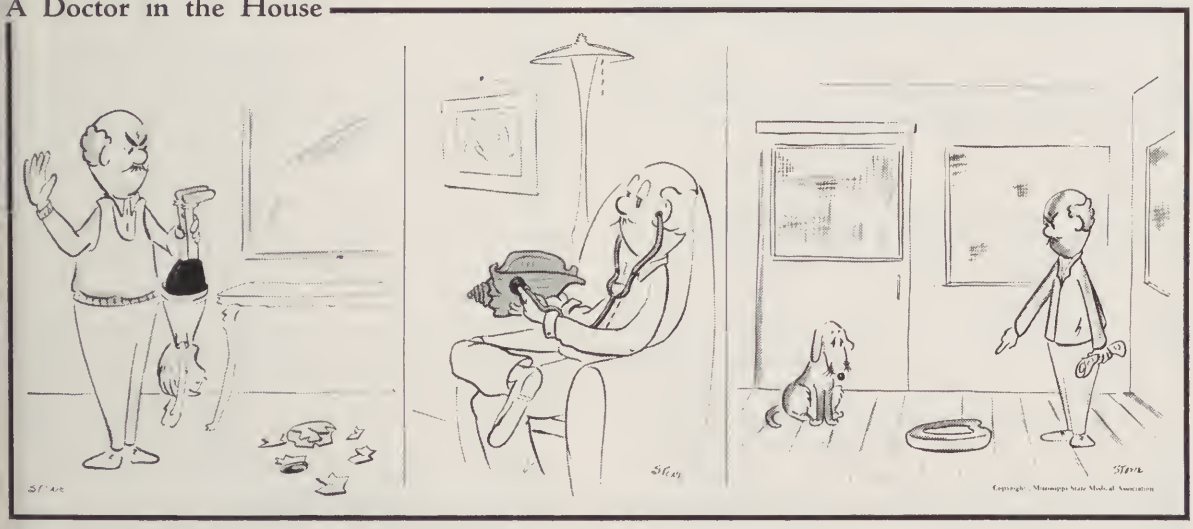
As before, Colorado will have something to show American medicine in terms of positive accomplishment.—R.B.K.

PERSONALS

JOHN ARCHER of Greenville has been named chairman of the Budget and Finance Committee for the American Cancer Society, Mississippi Division. R. H. FENSTERMACHER of Vicksburg will lead the work of the Campaign Committee for 1962. WILLARD H. PARSONS of Vicksburg has also been reappointed to chair the Professional Education Committee.

JIM M. BROCK, McComb, has been elected a Fellow of the American Academy of Dermatology and a Diplomat of the American Board of Dermatology. Dr. Brock is the son of Dr. and Mrs. L. W. Brock of McComb. He was graduated from the University of Mississippi with a B.A. degree and received his M.D. degree from Tulane. He interned at Charity Hospital in New Orleans and

A Doctor in the House



completed his residency in dermatology under a three-year fellowship at the Louisiana State University School of Medicine.

HENRY W. DEWITT, JR. has assumed his duties as head of the Department of Anesthesia for the Jones County Community Hospital. Dr. DeWitt received his M.D. degree from the University of Mississippi School of Medicine in 1958 and took his internship and residency at the University Hospital.

ROBERT L. FORMAN has been renamed chief of staff of the Coahoma County Hospital. I. P. Carr was elected vice president, WILLIAM BOBO, secretary, and DONALD ELLIS, STEVE LEIST, and R. RUBISOFF, executive committeemen.

VERNER S. HOLMES of McComb has been named a member of the executive committee of the American Liberty Life Insurance Company. Dr. Holmes has served on the company's board of directors for several years.

HERBERT G. LANGFORD, associate professor in the department of medicine, University of Mississippi School of Medicine, presented a paper before the Central Society for Clinical Investigation which met in Chicago.

JAMES N. MASON, retired Lamar County health officer was featured by the *Lamar County News* as "Citizen of the Week." Said the *News:* "Dr. Mason has done more in the field of public health in Lamar County than any person living today."

SAMUEL O. MASSEY, JR., has been named chief of the medical staff of the L. O. Crosby Memorial Hospital at Picayune. He succeeds Dr. Donald R. Berry. Dr. James M. Howell was named vice chief. Dr. Massey has also assumed a post on the Picayune Chamber of Commerce board of directors.

W. R. MAY was honored for 10-years service on the local Selective Service Board at a recent meeting of the Brookhaven Exchange Club.

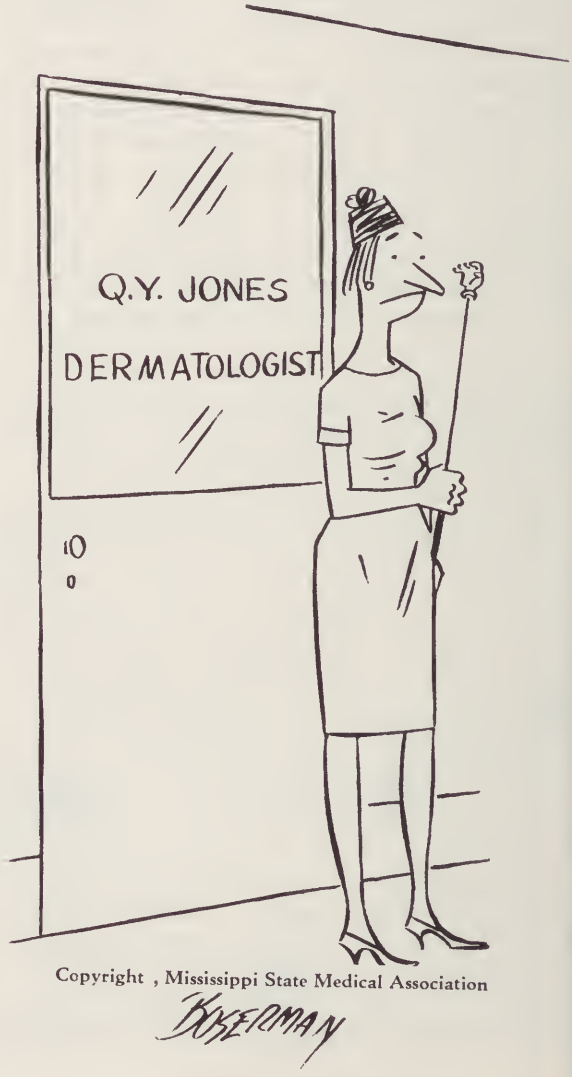
WILLIAM MONCURE DABNEY accepted Crystal Spring's first Merit Award at the annual Chamber of Commerce banquet held recently. The award was given by the Community Development Committee of the State Chamber of Commerce for attaining standards in health and sanitation. Dr. Dabney served as chairman of the Health and Sanitation Committee.

HOWARD A. NELSON has been named second vice president of the Greenwood Chamber of Commerce.

W. K. PURKS, Vicksburg, attended the International Seminar on the Causes of Heart Attacks held in Detroit under the sponsorship of the Henry Ford Hospital. Dr. Purks participated in discussions on "The Etiology of Myocardial Infarction."

LAMAR PURYEAR assumed the presidency of the Hazlehurst Chamber of Commerce in recent installations: Robert M. Akin is first vice president of the group.

L. D. TURNER was installed as president of the Crystal Springs Chamber of Commerce during the December meeting.



Copyright , Mississippi State Medical Association

BOSEMAN

Domestic Journals

Five Phenothiazine Derivatives: Evaluation and Toxicity Studies. J. L. Bennett, M.D., and Kenneth A. Kooi, M.D.: Arch. Gen. Psychiat. 4:107 (April) 1961.

Five commonly used phenothiazines were studied as to effectiveness and toxicity. The study was conducted blind on 30 young, male schizophrenics, using identically packaged phenobarbital as a control. The phenothiazines compared were chlorpromazine (Thorazine), mepazine (Pacatal), perphenazine (Trilafon), prochlorperazine (Compazine), and trifluprom azine (Vesprin). The relative daily average and maximum dosages used were as follows:

	Equivalent Dosage, Mg.	*Maximum Equivalent, Mg.*
Chlorpromazine (Thorazine)	200	1,200
Prochlorperazine (Compazine)	25	150
Trifluprom azine (Vesprin)	50	300
Perphenazine (Trilafon)	16	96
Mepazine (Pacatal)	50	300
Phenobarbital	32	200

A behavior evaluation was made and a Clinical Estimate of Psychiatric Status Scale was employed. In addition, 10 psychophysiological tests were given in each case and periodic electroencephalograms were made on each subject. The subjects were studied for effects of sudden withdrawal by substituting similar, inert capsules so the subjects did not know when the drugs were withdrawn.

Results were as follows: chlorpromazine, perphenazine, prochlorperazine, and trifluprom azine showed no significant differences in effectiveness as tested by the 24 criteria used. Mepazine was inferior to them, and no improvement was shown with phenobarbital.

With these prolonged high dosages, a high relationship was indicated between clinical improvement and the side effects of induced parkinsonism and induced abnormality of EEG, suggesting once more that often these drugs must be used to the point of producing these side effects to be clinically effective.

The authors found that in certain cases the time required for cessation of EEG abnormalities induced by the drugs might exceed 10 days. Hepatic and hematological toxicity did not occur in this series with the gradual step-up method of drug administration.

After abrupt withdrawal, there was a delay of four to six days, following which eight patients on the phenothiazines developed varying degrees of nausea, giddiness, tremulousness, and, in two instances, vomiting. Three of these eight patients showed a low-grade delusional tendency which ceased on the resumption of the original medication. No paroxysmal electrical patterns or clinical seizures occurred.

OSCAR E. HUBBARD, M.D.

Post-Traumatic Amnesia (PTA) in Closed Head Injury. W. Ritchie Russell, M.D., D.Sc., F.R.C.P., and Aaron Smith, Ph.D.: Arch. Neurol. 5:3 (July) 1961.

Authors Russell and Smith and their staff have performed the monumental task of analyzing the World War II Military Medical Records of 1,766 closed head injuries, to determine the relation between Post-Traumatic Amnesia (PTA) and the severity of brain damage. Early in their study it was recognized that certain types of injuries may result perhaps in severe brain damage without causing any clinical concussion at all, or may perhaps result in an amnesia of less than one hour, and that many reported crushing skull injuries have resulted in no loss of consciousness whatever. Such gross focal brain injuries due to depressed fractures, intracranial hemorrhage, on abscess would make them exceptional in the study of PTA due to concussion alone. Four hundred and thirty-two such cases are reported separately.

The 1,324 remaining cases were classified into four groups, namely:

Group A, 186 acute cases seen within three days after injury

LITERATURE / Continued

Group B, 168 subacute cases seen within three weeks after injury

Group C, 661 chronic cases seen within three weeks or longer after injury because of difficulties in rehabilitating or in assessment

Group D, 309 chronic cases with substantial neurological injuries and symptoms.

All but a few of the 1,766 cases were followed over a period of two years. Each case was carded and rated on 10 signs or symptoms, six of which were primarily clinical organic sequela, and three of which were primarily nonorganic reactions, and the 10th item was the type of military discharge which gave some indication as to invalidism. The six organic findings and symptoms were fracture of skull, anosmia, dysphasis, retrograde amnesia greater than 30 minutes, memory and/or calculation defect, and motor disorder. The nonorganic reactions were anxiety and depression, vertigo and headache (never or acute only).

Certain variables and limitations are described and discussed, but a consistent pattern persisted throughout pointing to a close correlation between the length of Post-Traumatic Amnesia (PTA) and the degree of brain damage, a very valuable index in estimating prognosis and in determining treatment and rehabilitation measures.

Well organized tables correlating the length of PTA from zero through various periods of less than one hour, to periods greater than seven days, set forth in brief graphic form the value of the length of PTA as an index to the degree of underlying pathology and as an index to the prognosis. Tables correlating PTA with the organic sequela and with nonorganic functional symptoms and with various age groups, also add to the value of PTA as an index of severity of pathology.

The authors modestly suggest the need for a change in our present system of classifying head injuries, holding that the emphasis should be upon the effect of unconsciousness both as regards the depth of unconsciousness and as regards the duration of disturbed consciousness. They also suggest classifying concussion as SLIGHT when PTA is under one hour, MODERATE from one to 24 hours, SEVERE from one to seven days, and VERY SEVERE if over seven days.

The authors discuss in considerable detail the literature bearing on Concussion and Post-Traumatic Amnesia. They and their staff are to be congratulated for this very excellent presentation of this subject and for their constructive conclusions and recommendations.

ROLAND E. TOMS, M.D.

NEW MEMBERS

BURGESS, CHARLES DUANE, Whitfield. M.D. University of Mississippi School of Medicine, Jackson, 1958; interned U. S. Public Health Service Hospital, New Orleans, La.; member of the American Medical Association and the U. S. Public Health Service Clinical Society; elected Oct. 3, 1961, by Central Medical Society.

DALE, DAVID BERRY, Prentiss. M.D. Tulane University School of Medicine, New Orleans, La., 1951; interned Touro Infirmary, New Orleans, La.; general surgery residency, Charity Hospital, New Orleans, La.; member of the American Medical Association; Captain, U. S. Army, two years; elected June 8, 1961, by South Mississippi Medical Society.

MYERS, ROBERT PATRICK, Jackson. M.D. University of Mississippi School of Medicine, Jackson, 1960; interned Mississippi Baptist Hospital, Jackson; elected Oct. 3, 1961, by Central Medical Society.



"It sounds like it's in love!"

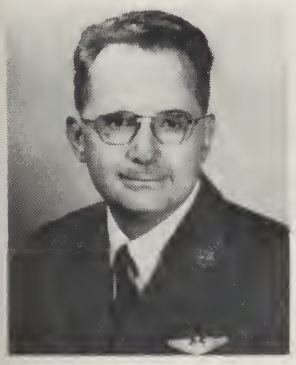
MSMA Will Bring Space Medicine Symposium To Jackson for 94th Annual Session, May 8-10

The 94th Annual Session will be a scientific milestone in the Mississippi State Medical Association's 106 year history. This was the prediction of Dr. Lawrence W. Long, president, and Dr. C. G. Sutherland, chairman of the Council on Scientific Assembly, who released details for the May 8-10, 1962, conclave set for Jackson. Seven formal scientific sections, as many as 20 specialty societies, and an important MSMA first, a Symposium on Space Medicine, will highlight the program.



Dr. Strughold

"Rarely will any single major scientific presentation, reinforced by special and unusual exhibits, such as our space symposium, be found on other than a national medical meeting program," Drs. Long and Sutherland said.



Dr. Stapp

"In this respect, MSMA will present this symposium with pride and satisfaction. Four internationally recognized authorities will appear and a series of scientific exhibits on space medicine, including an actual Mercury space capsule, will be presented," they added.

Featured essayists for the May 9 symposium, during which no other meetings are scheduled, include:

- Hubertus Strughold, M.D., Ph.D., professor of space medicine and chairman, Advance Studies Group, U.S.A.F. Aerospace Medical Center;
- John Paul Stapp, Colonel, U.S.A.F., (MC), M.D., Ph.D., Sc.D., special assistant in aerospace medicine, U.S.A.F. Aerospace Medical Center;
- David Goodman Simons, Lt. Colonel, U.S.A.F., (MC), M.D., Sc.D., chief, Bioastronautics Branch, Department of Space Medicine, U.S.A.F. School of Aviation Medicine;



Dr. Simons

- The Honorable John C. Stennis, U. S. Senate, member, Senate Committee on Aeronautical and Space Sciences and chairman, Senate Subcommittee on Military Preparedness Investigating.



Senator Stennis

Adjunctive scientific exhibits will feature the Mercury capsule, the first United States spacecraft to achieve suborbital and orbital space flight, with the companion escape tower assembly. Both the capsule and the escape tower are being lent the association by the National Aeronautics and Space Administration. The spacecraft exhibit will occupy 1,024 square feet of exhibit space in the scientific exhibit hall. Other important associated showings are medical presentations on "Man and Space," "Behind the Scenes of Bioastronautical Research," and "Aerospace Crew Effectiveness." The Mercury spacecraft will be shown by NASA personnel while the three

other presentations will be manned by Air Force medical officers.

The seven scientific sections—EENT, General Practice, Medicine, Obstetrics and Gynecology, Pediatrics, Preventive Medicine, and Surgery—will meet Tuesday afternoon, Wednesday afternoon, and Thursday morning. Specialty societies will concentrate on Monday, May 7, with some



And the Mercury spacecraft goes here! Dr. C. G. Sutherland, chairman of the Council on Scientific Assembly, shows MSMA president Lawrence W. Long the master exhibit plan for the 94th Annual Session.

scheduling later meetings. The annual association banquet and dance is set for Wednesday evening, May 9, and medical alumni reunions and dinner parties will include Tulane and Tennessee on May 7 and Ole Miss on May 8.

The 39th Annual Session of the Woman's Auxiliary to the Mississippi State Medical Association will begin formally on May 8 after preconvention executive board activities on the preceding day. Mrs. John G. Egger, Drew, president, and Mrs. A. T. Tatum, Petal, president-elect, will release program details soon.

Co-headquarters hotels for the meet are the Heidelberg and King Edward with room blocks available in three other conveniently adjacent Jackson hotels. Business sessions, scientific activities, and exhibits will be housed at the Heidelberg, while the Auxiliary, major specialty societies, and several social occasions are slated for the King Edward.

The recently completed Olympic Room at the Heidelberg, one of the largest major hotel facilities in the South, will serve as the exhibit hall. A total of 89 booths will be presented, including the showing of the Mercury space capsule.

Preparations for the annual session, Drs. Long and Sutherland said, will accommodate a registration of 1,500, the tentatively estimated attendance. Seating arrangements for 1,200 will be available for the Symposium on Space Medicine and members of the association will be permitted to invite nonmedical guests. Admission to the symposium will be by membership or invitation only.

The House of Delegates will meet Tuesday morning, May 8, and Thursday afternoon, May 10, when 1962-63 elected officials will be named. At the final delegates' meeting, Dr. C. P. Crenshaw, Collins, will be inaugurated president, succeeding Dr. Long.

Members of the Council on Scientific Assembly are Drs. William T. Wilkins, Clarksdale, EENT; John B. Howell, Jr., Canton, General Practice; Raymond F. Grenfell, Jackson, Medicine; Michael Newton, Jackson, Obstetrics and Gynecology; Frank M. Wiygul, Jackson, Pediatrics; Percy T. Howell, Forest, Preventive Medicine; and James T. Thompson, Moss Point, Surgery. Dr. Sutherland is chairman of the council.

College of Surgeons Sets Memphis Sectional Meet

The American College of Surgeons will hold the third of four 1962 sectional meetings in Memphis, Tenn., March 26 through 28. More than 400 doctors are expected to attend this scientific session, to be held in the Peabody Hotel. All members of the medical profession are invited.

The advisory committee on local arrangements, under the chairmanship of Dr. Harwell Wilson, professor and chairman of the department of surgery, University of Tennessee College of Medicine, has planned a program of interest to general surgeons and specialists. Subjects to be discussed include surgical management of pancreatitis, acute staphylococcal enterocolitis, new methods of diagnosis in diseases of the gastrointestinal tract, plication for intestinal obstruction, stricture of the common duct, cerebral arterial insufficiency, chemotherapy as adjunct to surgery, endocrine influence on cancer growth, differential diagnosis of jaundice, management of surgical patients on steroids, anticoagulants, and antibiotics.

Dr. Robert M. Zollinger, Columbus, Ohio, president of the College, will moderate a panel on gastrointestinal bleeding of unknown etiology.

The final 1962 sectional meeting will be held in Washington, D. C., April 16-18.

Specialty Designations Revised by AMA

Medical specialties recognized by the American Medical Association have been reduced from 33 to 29 and 12 former specialty designations have been eliminated altogether or altered in nomenclature. The reductions and redesignations were approved by the Board of Trustees on recommendation of the Division of Scientific Activities.

Four designations are no longer recognized as medical specialties. These are bacteriology, family practice, hospital administration, and legal medicine. New or revised designations have been officially assigned to clinical pathology; gynecology; medical administration; the former combined designation of ophthalmology, otology, laryngology, and rhinology; obstetrics; psychiatry and neurology; the old joint designation of pathology, pathologic anatomy, and clinical pathology; and roentgenology.

New and official medical specialty designations, together with symbols used for abbreviations, are:

A—Allergy
ADM—Administrative Medicine
ALR—Otolaryngology
AM—Aviation Medicine
ANES—Anesthesiology
C—Cardiovascular Disease
D—Dermatology
GE—Gastroenterology
GP—General Practice
I—Internal Medicine
N—Neurology
NS—Neurological Surgery
OBG—Obstetrics, Gynecology
OM—Occupational Medicine
OPH—Ophthalmology
OR—Orthopedic Surgery
P—Psychiatry
PATH—Pathology
PD—Pediatrics
PH—Public Health
PL—Plastic Surgery
PM—Physical Medicine and Rehabilitation
PR—Proctology
PREV—Preventive Medicine
PUL—Pulmonary Diseases
R—Radiology
S—General Surgery
TS—Thoracic Surgery
U—Urology

The new specialty designations are being applied to AMA's quarter million plus biographical records of American physicians and will be used in all directory publications.



"As your allergist, I'm recommending you as the first man off this planet."

American Thoracic Society Announces May Meeting

Recent advances in tuberculosis and other respiratory diseases will be reviewed during the 1961 annual meeting of the American Thoracic Society, announced for May 21-23 in Miami Beach, Fla.

The Society is the medical section of the National Tuberculosis Association.

On the first and last mornings of the three-day meeting, symposiums will be presented on "How Effective Can Anti-Tuberculosis Therapy Be?" and "Chronic Bronchitis—An Entity?" On both days small groups will discuss inhalation therapy, laboratory diagnosis of mycotic infection, lobectomy vs. segmental resection in chronic pulmonary infection, the management of reactions to tuberculosis drugs, the chemotherapy of systemicmycoses, and preoperative irradiation in treating cancer of the lung.

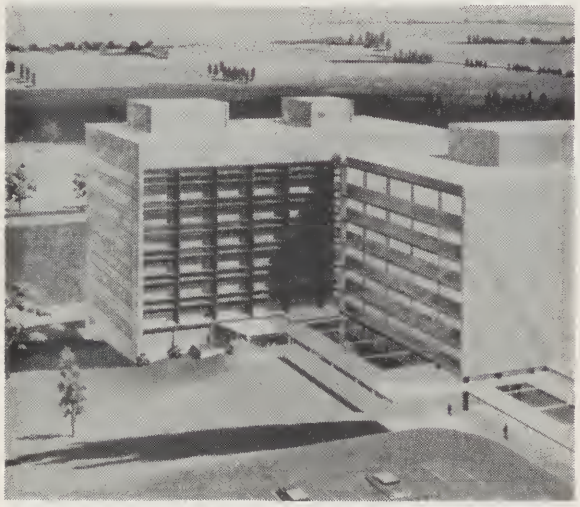
Round-table discussions will be held each afternoon following the morning presentation of scientific papers. The Amberson Lecture, sponsored by alumni of Bellevue Hospital in New York City who served under Dr. J. Burns Amberson, will be

held Tuesday, May 22, at 11:15 a.m. The annual business meeting of the ATS will be held at noon that day. Dr. Asher Marks is chairman of the program committee.

Further information may be obtained from the National Tuberculosis Association, 1790 Broadway, New York 19, N. Y.

Construction Begun On UMC Research Wing

The first major expansion of the six-year-old University Medical Center got underway in October as construction crews began excavations for



The architect's drawing shows how the new research wing at the University Medical Center will look when completed. Scheduled completion date is Feb. 1, 1963.

a new wing which will be dedicated solely to research.

Contracted to cost 3 million dollars, the project will be financed half by a state appropriation and half by federal funds. Target date for completion is February 1963.

All told, three times the research space will be available in the new expansion as is presently provided. Approximately 150 labs will occupy most of the 122,422 square feet of floor space.

Jutting out to the north and east of the present school wing, the new construction will closely resemble the existing structure in size, shape, design, floor plan, and building materials used. As shown in the accompanying illustration, the canopy across the north end of the center will make a right-angle turn to include the entrance to the research wing.

Each of the eight floors in the new expansion will dovetail with the basic science departments located on the corresponding school wing floor, with access corridors cut through.

An entire top floor of modern animal quarters will house rodents, reptiles, dogs, cats and monkeys, with animal operating and treatment rooms convenient to the boarding areas.

On the ground floor will be comprehensive electronics and machine shops and isotope storage space for the use of all departments.

The battery of new equipment ready for use when the extension is opened will include two more electron microscopes, diagnostic and therapeutic x-ray machines, an illustrations lab, computer center, records room and duplicating facilities.

Office areas adjoining labs will provide space for the scientists to keep up with their transcribing and paper work.

The new wing's arrangement is thoughtfully planned around four-foot increments, and every room is some combination of these basic units. Such design makes for economy of construction and permits furnishing with stock sizes of laboratory and office equipment.

The planners have arranged for each laboratory desk to be equipped with a variety of electrical circuits and a constant, piped-in supply of vacuum, gas, compressed air, distilled water, steam, and, of course, regular hot and cold tap water.

With all existing lab space at the Medical Center filled and overflowing with researchers, the new expansion is simply a growth project. The grants and research committee, headed by Dr. Arthur C. Guyton, anticipates the additional space will permit UMC researchers to spread out and extend their present efforts in several directions at once.

More space and more people at work also is expected to attract greater grant appropriations, according to Dr. Guyton. With the Medical Center currently receiving a million and a quarter dollars per year in research funds, administrative officials look for three times as much within 10 years after the opening of the new research wing.

Public Health Workers Hold 25th Annual Meeting

Public health workers from every county in the state convened in Jackson, Dec. 6-8 for the 25th annual meeting of the Mississippi Public Health Association.

Under the theme "New Horizons in Health Care," attention was focused on radiological health, emergency health care, care of the aged, home accident prevention, newer methods in disease control, and sanitation problems.

Speakers for the opening session on Wednesday were Dr. W. D. McCain, president of Mississippi Southern College, Dr. Daniel Bergsma of New York City, and Governor Ross R. Barnett.

Featured at the general session Thursday morning were Dr. Harold W. Brown, Columbia University parasitologist, New York City, who made the Felix J. Underwood Memorial Address; Dr. H. B. Cottrell, a former Mississippian who is now regional chief of general Health Services, Public Health Service, Atlanta; and Dr. A. D. Suttle, director of the Mississippi Industrial and Technological Research Commission.

The association divided into eight sections for group meetings on Thursday afternoon and Friday morning.

At the close of the three-day meeting, Howard E. Boone of the State Public Health Department was inaugurated president. J. L. Knight of Louisville was named president-elect and Vardaman Hawkins of Jackson, secretary.



"I hope he finds that I'm allergic to cheap, cotton dresses!"

Section chairmen are Miss Lucille Little of Jackson, community health services; Mrs. Edna Roberts of Sardis, public health nursing; Miss Lilla Casey of Jackson, clerical chairman; Mrs. Gladys Harris of Jackson, vital statistics chairman; Earl Ward of Clarksdale, venereal disease investigation; Hemby Davis of Jackson, sanitation; Dr. Dominic Tumminello of Cleveland, administrative chairman, and Dr. H. C. Ricks of Jackson, laboratory chairman.

Tulane to Conduct Course On Surgery of the Hand

The fifth postgraduate course in "Surgery of the Hand" will be presented by the division of orthopaedic surgery of Tulane University School of Medicine on March 22, 23, and 24, 1962.

Dr. Adrian Flatt will be the featured guest lecturer.

This course, under the co-chairmanship of Dr. Daniel C. Riordan and Dr. Jack Wickstrom, will include anatomy, kinesiology, pathology and traumatology, as well as surgical techniques of corrective and reconstructive surgery of the hand.

Inquiries should be directed to the Division of Graduate Medicine, Tulane University School of Medicine, 1430 Tulane Avenue, New Orleans 12, La.

Gulf Coast GP's Slate Symposium

A symposium in clinical medicine and surgery has been announced for Jan. 5 by the Mobile Chapter of the American Academy of General Practice and the Gulf Coast Clinical Society. The one day meet will be held at the Admiral Semmes Hotel at Mobile, Ala., the announcement stated.

Presiding over morning sessions will be Dr. Henry C. Mullins, a past president of the Mobile GP chapter. Dr. Theodore Middleton, president of the Gulf Coast Clinical Society, will chair the afternoon proceedings. Six essayists will present papers in the fields of otolaryngology, pediatrics, gynecology, medicine, and general surgery. A luncheon is scheduled and a reception will follow adjournment of the symposium.

Essayists and their respective titles are:

—Noah D. Fabricant, M.D., Chicago, "When to Open the Eardrum in Otitis Media"

—Frank W. Norman, M.D., Santa Rosa, Calif., "Common Infant Food Problems in General Practice"

ORGANIZATION / Continued

—Isadore Dyer, M.D., New Orleans, "Trich or Treat?"
—William Hollander, M.D., Boston, "My Criteria for Exhaustive Work-up of the Hypertensive"
—Harry C. Shirkey, M.D., Birmingham, "Medical and Surgical Aspects of Poisoning in Children"
—Lloyd M. Nyhus, M.D., Seattle, Wash., "Inguinal Hernia Repair by Pre-peritoneal Approach"

Dr. William G. Wiles will preside over the luncheon to which physicians' wives are invited. A separate program for wives, running concurrently with the symposium, is planned. The reception is open to registrants, wives, and symposium guests. The sponsoring organizations said that there is neither a registration fee nor a charge for the luncheon. The program is under the chairmanship of Dr. Max V. McLaughlin, Mobile.

Dr. J. H. Hughes Honored For 50 Years' Service

Dr. James Herman Hughes of Kossuth was honored by MSMA on Nov. 12, 1961, when he received the Fifty Year Club gold pin and plaque signifying 50 years of service in the medical profession.



Frank Hughes, right, decorates the lapel of his father, Dr. J. H. Hughes of Kossuth, with a pin presented for 50 years of service to the medical profession.

Presentation ceremonies were held at the Kossuth Methodist Church with Dr. Frank Davis of Corinth, MSMA vice president, officiating.

The awards were presented by Dr. J. R. Hill of Corinth, a former partner of Dr. Hughes and also a member of the Fifty Year Club, and Dr. W. H. Anderson of Booneville.

Dr. Hughes was born in Alcorn County Sept. 27, 1880, and taught school in a one-room school house to earn money to attend medical school.

He was graduated from the University of Tennessee Medical School in Memphis in 1909 and served as vice president of his senior class.

After graduation, Dr. Hughes returned to Alcorn County and began his practice at Kossuth on June 2, 1909, in partnership wtih Dr. Hill, who has practiced in Corinth for the past several years.

The Kossuth Methodist Church was filled to capacity by friends, neighbors, former patients, and physicians as the award was presented.

30 General Practitioners Attend Trauma Seminar

Thirty general practitioners from over the state spent Nov. 30 and Dec. 1 studying trauma diagnosis and treatment.

The postgraduate course, sponsored by the University Medical Center, covered injuries, both internal and external, to all parts of the body.

Dr. Floyd E. Bliven, Jr., professor of surgery and chief of orthopedics at the Medical College of Georgia, headed the faculty. He spoke on spine and pelvic injuries, trauma of the lower extremities, and participated in a panel on medico-legal responsibilities.

William Waller of Jackson, district attorney of the Seventh Circuit Court District for the past two years, described "The Medical Witness" and participated on the medico-legal panel with Dr. Paul S. Derian, UMC chief of orthopedics and coordinator of the program.

In addition to the lectures the physicians made ward rounds where they inspected plaster techniques, physical therapy, and types of immobilization.

The complete faculty roster included Dr. Temple Ainsworth, clinical associate professor of surgery and chief, division of urology; Dr. Curtis P. Artz, associate professor of surgery; Dr. Marion A. Carnes, assistant professor of anesthesiology; Dr. Paul S. Derian, associate professor of surgery and chief, division of orthopedics; Dr. James D. Hardy, professor of surgery and chairman of the

department; Dr. James H. Hendrix, Jr., clinical assistant professor of surgery and chief, division of plastic surgery.

Also Dr. William A. Neely, assistant professor of surgery and biochemistry; Dr. William H. Siegrist, clinical instructor in surgery (orthopedics); Dr. Robert D. Sloan, professor of radiology and chairman of the department; Dr. Watts R. Webb, associate professor of surgery; Dr. Julian R. Youmans, assistant professor of neurosurgery, and orthopedic residents Dr. Norris C. Knight, Jr., and Dr. William B. Thompson.

The Mississippi Academy of General Practice approved the course for 12 hours of Category 1 postgraduate credit.

FDA Says Honey No Cure For 'Premature Death'

Honey is not a cure for "premature death," nor is it good for waning virility, rheumatism, arthritis, or a weak heart, the Food and Drugs Administration said in announcing seizure of nearly 3,000 pounds of honey at a Detroit health food store.

FDA charged that the false claims for various disease conditions were made in promotional material being used by the dealer, Detroit Vital Foods, Inc., whose president is Lelord Kordel, a "health food lecturer." Other Kordel products have previously been involved in FDA court actions. Kordel was fined $4,000 in 1946 for misbranding vitamin-mineral products and other so-called "health foods," FDA said.

Michigan State Inspectors helped to round up the almost 1½ tons of honey from four of the dealer's stores for seizure by the U. S. Marshal. Seized along with the honey were the October and November issues of a newspaper-type circular and booklets containing the therapeutic claims which FDA charged were false.

The honey was labeled as coming from such plants as alfalfa, avocado, eucalyptus, sage, buckwheat, and tupelo blossom, and from such places as the Maya Mountain (British Honduras), Athens (Greece), and Yucatan.

FDA said that honey is a food and has none of the disease preventive or curative properties which were claimed for it. The type of honey in the action would not differ in this respect from any other honey, the agency said.



Copyright 1961, Mississippi State Medical Association

"I'm sorry, Madam, but you have the wrong Department of Labor."

Tri-State Thoracic Meet Set for Jan. 12-13

The Sixth Annual Tri-State Consecutive Case Conference for physicians of Alabama, Louisiana, and Mississippi will be held Jan. 12 and 13 at the Buena Vista Hotel in Biloxi.

The scientific meeting will be sponsored jointly by the Tuberculosis Associations and Thoracic Societies of the three states. Activities will open Friday at 9:00 a.m. with a one-round golf tournament. Physicians interested should contact Dr. Willard Boggan, 500-N East Woodrow Wilson, Jackson, for details.

The first scientific session will begin at 1:00 p.m. on Friday with Dr. Boggan moderating. Dr. William Newton of Jackson is scheduled to present ten consecutive cases of solitary pulmonary nodules and Dr. Watts R. Webb of Jackson will discuss ten consecutive cases of unusual pulmonary resections.

The Alabama Case presentations will be given Saturday morning starting at 9:00 a.m. Dr. Joe Norman and Dr. Ben Branscomb of the Medical College of Alabama will present ten consecutive cases with respiratory insufficiency and CO_2 retention and Dr. John Henderson and Dr. Guy Hood of the Medical College of Alabama will discuss ten consecutive diabetic patients with Tuberculosis.

During the third session, set for Saturday afternoon, the Louisiana Case Presentations will be given. Drs. W. J. O'Shaughnessey, F. L. Hansen, H. A. Buechner, and M. M. Ziskind will present ten cases of acute lung abscess surgically treated and Dr. J. H. Seabudy will discuss therapeutic experiences with 10 successive cases of systemic fungus infection.

Guest discussers for the sessions will be Dr. William Harris, president-elect, American Thoracic Society, who is associated with the Woman's College, Philadelphia, Pa.; Dr. Coleman B. Rabin, assistant professor of medicine, Columbia University, and Dr. Harry E. Walkup, director of research, American Thoracic Society, National Tuberculosis Association.

Further information on the conference may be obtained from Judson M. Allred, Jr., executive director, Mississippi Tuberculosis Association, P. O. Box 9865 Northside Station, Jackson 6, Miss.

Chest Physicians Name Dr. Watts R. Webb Secretary

Dr. Watts R. Webb of the Department of Surgery, University of Mississippi School of Medicine has been named secretary of the Southern Chapter of the American College of Chest Physicians.

Dr. Webb was inaugurated at the group's 18th annual meeting Nov. 4-5, 1961, in Dallas, Texas.

Other officers are Henry R. Hoskins, San Antonio, Texas, president; Joseph W. Peabody, Jr., Washington, D. C., first vice president; William S. Klein, Baltimore, Md., second vice president.

Postgraduate Course In Rheumatology Outlined

Speakers from Tulane University and the Universities of Tennessee, Illinois, and Rochester will conduct a Postgraduate Course in Rheumatology at the University of Mississippi Medical Center on Feb. 22.

The one-day meeting will be sponsored by the University of Mississippi School of Medicine and the Mississippi Chapter of the Arthritis and Rheumatism Foundation. Geigy Pharmaceuticals is providing financial support.

The speakers will be Dr. Glenn Clark, University of Tennessee; Dr. Victor Pollak, University of Illinois; Dr. John Vaughan, University of Rochester; Dr. Daniel Riordan, Tulane.

Registration for the meeting will begin at 8:30 with the program running from 9:00 until 4:30.

Third Annual UMC Day Scheduled for Feb. 1

The University of Mississippi Medical Center has set the first day of February for its third annual homecoming. The first UMC day was held in 1960 when 21 of the then 30 graduates returned to their alma mater.

Dr. Watts R. Webb, chairman of the postgraduate education committee, which is planning the event, promises a program of "enlightenment and entertainment."

All Medical Center physician-alumni are invited to attend UMC Day. Further information may be secured from the Public Information Office at the Medical Center.

Rystan Company Launches Sports Medicine Newsletter

One of the newest entries in the field of medical publications is Rystan Company's "Medicine in Sports." Published every other month, the newsletter carries recent developments in the world of sports medicine and is distributed to several thousand physicians associated with school athletic programs.

In Volume 1, No. 1 of the now four-issue-old newsletter, Editor Charles C. Stanton writes, "Not all sports-oriented physicians are fully informed either of current findings in this new area of medicine or of the direction that future research should take. While some physicians associated with school athletics have access to excellent university programs, many others are isolated in small communities, with limited resources. These physicians, and the coaches, trainers, and educators with whom they are associated have the greatest need for 'education' in the special problems of sports medicine."

Specifically, says Mr. Stanton, the newsletter will carry news of recent developments, national and regional conferences on sports medicine, and notes and references from the current literature on athletic injuries.

In a recent letter to JOURNAL MSMA, Editor Stanton asked that any Mississippi physician interested in receiving the publication write him at 7 N. MacQuesten Parkway, Mount Vernon, N. Y. The publication will be sent free of charge to interested doctors, he said.

Heart Association Sets Deadlines for 1962 Meet

The 1962 Annual Meeting and Scientific Sessions of the American Heart Association will be held in Cleveland from Oct. 26-30. The Scientific Sessions are scheduled from Friday, Oct. 26, through Sunday, Oct. 28.

May 15, 1962 is the deadline for submitting abstracts of papers for presentation at the Scientific Sessions. Papers must be based on original investigations in, or related to, the cardiovascular field. Official forms for submitting abstracts may be obtained from Dr. Richard E. Hurley, Medical Associate, American Heart Association, 44 East 23rd Street, New York 10, N. Y.

Applications for scientific exhibit space are also available from Dr. Hurley. These must be returned not later than May 15, 1962. Space for industrial exhibits may be obtained through Steven K. Herlitz, Inc., 280 Madison Avenue, New York 16, N. Y. General information concerning the meetings may be obtained from H. Douglas Chisholm, Associate Director, American Heart Association.

State Morbidity Reported Through Dec. 1, 1961

The Mississippi State Board of Health reports the following occurrence of morbidity for 1961 through the 48th week of the year, ending Dec. 1. Case totals reported are shown opposite the disease condition.

Tuberculosis, pul.	618
Tuberculosis, O. F.	44
Salmonella food poisoning	9
Food poisoning, NOS	1
Gas gangrene	2
Parathyphoid fever	1
Salmonella infections	14
Brucellosis	7
Dysentery	
Amebic	44
Bacillary	49
Septicemia, NOS	1
Staphylococcus infection	48
Leptospirosis	2
Diphtheria	7
Typhoid fever	4
Meningococcus infection	
Meningitis	12
Meningococcemia	4
Meningitis, O. F.	105
Tularemia	10
Tetanus	14
Poliomyelitis	24
Encephalitis	
Infectious	51
Postvaccinal	1
Mononucleosis, infectious	100
Generalized vaccinia	1
Toxoplasmosis	3
Puerperal sepsis	2
Diarrhea of newborn	22
Hepatitis, infectious	1,441
Hepatitis, serum	2
Helminthic infections	
Taeniasis (dwarf)	3
Hookworm	1,350
Ascariasis	346
Strongyloides	41
Cryptococcosis	1
Histoplasmosis	36
Streptococcus infection	
Scarlet fever	252
Strep throat	1,847
Rheumatic fever	5
Rheumatic heart	7
Pertussis	37
Measles	1,413
Chickenpox	823
Mumps	634
Influenza	1,014
Chancroid	16
Gonorrhea	5,515
Syphilis	
Early	264
Late	299

Pascagoula Physician Awarded 50-Year Pin

During the Nov. 9 meeting of the Coast Counties Medical Society, Dr. S. B. McIlwain of Pascagoula was awarded the Fifty Year Club pin and plaque.

Dr. C. D. Taylor of Pass Christian, member of MSMA Board of Trustees, made the presentation.

Dr. McIlwain was graduated from medical school in 1911 and began his practice in Bucatunna. He moved to Pascagoula in the spring of 1918, remembered as the year of the influenza epidemic.

He helped to organize the Jackson County Hospital located midway between Pascagoula and Moss Point which opened on Feb. 1, 1931, and served as chairman of the building committee for

the Singing River Hospital which opened on June 20, 1959.

Dr. McIlwain is past president of the Coast Counties Medical Association. He served as county examiner for the draft board during the 1940's.

New Medicare Forms Are Available

The five-year-old Medicare claim form has been revised and the new version has been authorized for use. Designated DA Form 1863-2, the three part blank contains interleaved carbon and is titled "Services by Civilian Physicians and Dentists." Hospitals will use a different form for Medicare patients.

The Office for Dependents' Medical Care, Washington, asks that existing stocks of the old DA Form 1863 (white) be used. All reorders from physicians and dentists for form supplies will be filled with the new buff colored version.

The new DA Form 1863-2 contains approximately the same number of items as the one which has been in use since inception of the program. Improvements to speed adjudication include blanks for the name and location of the hospital in which the patient was treated, types of service rendered in terms of capacities in which physicians served the patient, certification of special circumstances, and simplified patient identification. Only a single signature is required.

MSMA's Medicare Department has stocked the new form and can make immediate shipment to physicians whose supplies are exhausted. It is not anticipated that the forms will be available through hospitals.

AHA Institutes Medical Education Research Program

A fellowship program aimed at stimulating research in medical education has been established by the American Heart Association. Undertaken in an effort to meet the need for specialists to guide and evaluate professional education activities at both the undergraduate and postgraduate level, the new program will seek to encourage clinical and/or basic scientists to study educational principles and methods of educational research.

Candidates selected will be given an opportunity to receive training at one of the three medical schools that have established departments of research in medical education. They will also take part in the investigative programs in which these groups are engaged and in the experimental pilot projects in continuing education now being established by the American Heart Association.

In order to meet the needs of candidates drawn from varied background and experience, no fixed fellowship stipend has been established. An appropriate level of support can be provided for candidates who have just completed residency training, or those who have already achieved the level of independent investigation.

Further inquiry on application may be addressed to: Dr. Frederick J. Lewy, Associate Medical Director, American Heart Association, 44 East 23rd Street, New York 10, N. Y.

1961 Graduate of UMC Dies of Heart Attack

Dr. Eli A. Isquith, an outstanding 1961 graduate of the University of Mississippi School of Medicine, died of a heart attack in San Francisco General Hospital on Saturday, Nov. 18. He was 31 years old.

Dr. Isquith was a member of Alpha Omega Alpha and the recipient of a 1961 Mosby award. He received his B.A. from Union College in Vancouver, British Columbia, Canada, and his M.A. from Brooklyn College in New York.

He is survived by his widow, Sondra, and two sons, David, age 6, and Jacob Curtis, two and one-half months.

The UMC student body has initiated a memorial fund in his honor. Those wishing to contribute may send their gifts in care of the Public Information Office.

DEATHS

BACKSTROM, JOHN GARNER, Grenada. M.D. Louisville Medical College, Kentucky, 1898; member of the American Medical Association; emeritus member of MSMA and member of the Fifty Year Club; Captain, U. S. Army, two years; died October 30, 1961, aged 87.

LEONARD, HENRY OSCAR, JR., Coffeeville. M.D. Memphis Hospital Medical College, Tenn.; died Nov. 26, 1961, aged 83.

SMITH, ALVAH PURSER, Bay St. Louis. M.D. Tulane University School of Medicine, New Orleans, La., 1915; died Oct. 30, 1961, aged 77.





BULK IS BASIC

in treating constipation of pregnancy

METAMUCIL®

corrects constipation without irritation

"Pregnancy and menstruation[1] are contraindications to the use of the stronger cathartics, since the hyperemia may lead to abortion or excessive menstrual flow."

Metamucil, with its soft, mucilloid bulk, mixes with the intestinal contents and exerts gentle pressure on the intestinal musculature to stimulate normal peristalsis.

In pregnant patients, this natural stimulus strengthens the response of the musculature, reinforces the defecatory reflex in the rectum and, in all but rare instances, resort to colonic irritants becomes unnecessary.

Together with proper dietary management and attention to regularity, mild encouragement to regular evacuation which nearly all pregnant patients require is possible with nonhabit-forming Metamucil.

Metamucil is available as Metamucil powder in containers of 4, 8 and 16 ounces, and as lemon-flavored Instant Mix Metamucil in cartons of 16 and 30 single-dose packets.

1. Sollmann, T.: A Manual of Pharmacology and Its Applications to Therapeutics and Toxicology, ed. 8, Philadelphia, W. B. Saunders Company, 1957, p. 206.

METAMUCIL®

brand of psyllium hydrophilic mucilloid

G. D. SEARLE & CO.

CHICAGO 80, ILLINOIS

Research in the Service of Medicine



Today's little "limey" needs a half barrel of orange juice

...or, to be exact, a total of 2,106 ounces in his first two years. And how much he'll need during his first twenty years would have to be measured by the truckload, because the need for the nutrients contained in Florida orange juice continues throughout life.

How our little "limey" or any of your other patients obtain the vitamins and nutrients found in citrus fruits is important to them and to you. There are so many wrong ways, so many substitutes and imitations for the real thing.

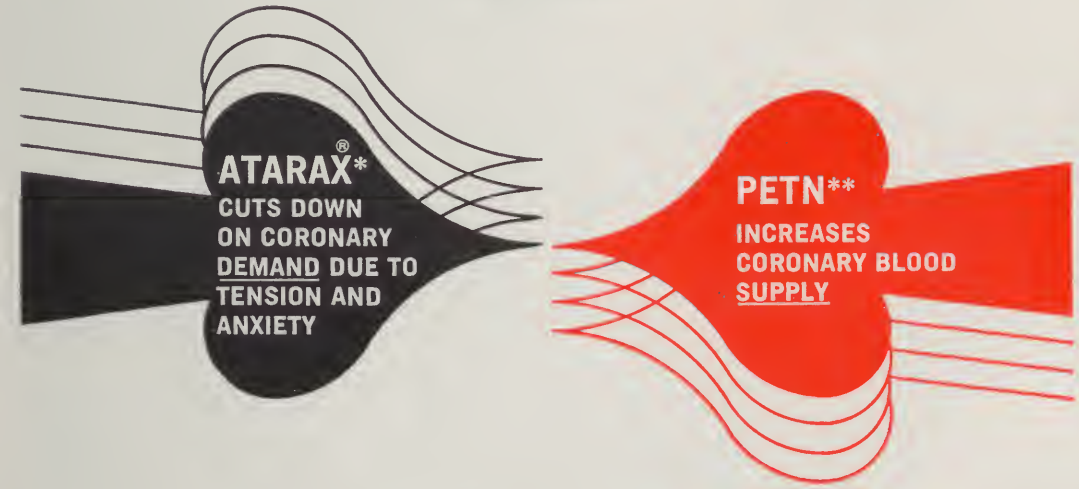
For a way that combines real nutrition with real pleasure, there's nothing better than the oranges and grapefruit ripened under Florida's own sunshine. Somehow, nothing can surpass the result of the combination of sun, air, temperature, and soil found in Florida.

It's good nutrition to encourage people to drink orange juice. It's even more judicious to encourage them to drink the juices and eat the fruits watched over by the Florida Citrus Commission. These men set the world's highest standards of quality in fresh, frozen, canned, or cartoned citrus fruits and juices.

When you suggest to your patients that they have a big glass of orange juice for breakfast, or for a snack, or when they want to raid the refrigerator, the deliciousness of Florida orange juice will give you assurance that they'll *want* to carry out your recommendation. You'll be helping them to the finest drink there is—by the glassful or the barrel.

© Florida Citrus Commission, Lakeland, Florida

HOW CARTRAX® OFFERS BETTER PROTECTION AGAINST ANGINA PECTORIS THAN VASODILATORS ALONE:



TOGETHER—IN CARTRAX...

they decrease "length, severity, and amount of angina pectoris" in anxious cardiacs.[1]

Give your angina patient better protection by balancing supply and demand...with CARTRAX.

note: Should be given with caution in glaucoma.

dosage: Begin with 1 to 2 yellow CARTRAX "10" tablets (10 mg. PETN plus 10 mg. Atarax) 3 to 4 times daily. When indicated, this may be increased by switching to pink CARTRAX "20" tablets (20 mg. PETN plus 10 mg. Atarax). For convenience, write "CARTRAX 10" or "CARTRAX 20."
Supplied in bottles of 100. Prescription only.

1. Clark, T. E., and Jochem, G. G.: Angiology **11**:361 (Aug.) 1960.

*brand of hydroxyzine **pentaerythritol tetranitrate

Roerig

New York 17, N.Y.
Division, Chas. Pfizer & Co., Inc.
Science for the World's Well-Being®

In intestinal "grippe"

prompt 4 way check of diarrhea

- Curbs excessive peristalsis
- Adsorbs toxins and gases
- Soothes inflamed mucosa
- Provides intestinal antisepsis



POMALIN

TRADEMARK

Liquid

EFFECTIVE ANTIDIARRHEAL

FORMULA: *Each 15 cc. (tablespoon) contains:*
Sulfaguanidine U.S.P. ... 2 Gm.
Pectin N.F. ..... 225 mg.
Kaolin ..... 3 Gm.
Opium tincture U.S.P. ...0.08 cc.
(equivalent to 2 cc. paregoric)

DOSAGE: Adults: Initially 1 or 2 tablespoons from four to six times daily, or 1 or 2 teaspoons after each loose bowel movement; reduce dosage as diarrhea subsides.

Children: ½ teaspoon (=2.5 cc.) per 15 lb. of body weight every four hours day and night until stools are reduced to five daily, then every eight hours for three days.

SUPPLIED: *Bottles of 16 fl. oz. (raspberry flavor, pink color)*
Exempt Narcotic. Available on Prescription Only.

Winthrop LABORATORIES
New York 18, N. Y.

Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.



Terramycin®

BRAND OF OXYTETRACYCLINE

Continuing to grow in clinical stature



Continuing to grow in clinical stature

Recent medical literature[1-27]—adding to an already massive bibliography—continues to document the effectiveness of well-tolerated Terramycin in pediatric, respiratory, and other infections.

Recent bibliography: 1. A.M.A. Council on Drugs, New and Nonofficial Drugs 1961, Philadelphia, Lippincott, 1961, pp. 142-147. **2.** Beckman, H.: The Year Book of Drug Therapy, Chicago, Yr. Bk. Pub., 1961, p. 271. **3.** Eastman, N. J., and Hellman, L. M.: Williams Obstetrics, ed. 12, New York, Appleton-Century-Crofts, 1961, pp. 845-1035. **4.** Keefer, C. S., in Modell, W.: Drugs of Choice 1960-1961, St. Louis, Mosby, 1960, pp. 141, 146, 147. **5.** Huang, N. N.: J. Pediat. 59:512, 1961. **6.** Smith, R. C. F.: Brit. J. Clin. Practice 15:345, 1961. **7.** Asay, L. D., and Koch, R.: New England J. Med. 262:1062, 1960. **8.** Berry, D. G., et al.: Lancet 1:137, 1960. **9.** Osol, A., et al.: The Dispensatory of the United States of America, ed. 25, Philadelphia, Lippincott, 1960, pp. 953, 1556. **10.** Adams, A. R. D.: Brit. M. J. 1:1639, 1960. **11.** Jung, R. C., and Carrera, G. M.: Dis. Colon & Rectum 3:313, 1960. **12.** De Lamater, J. N.: Am. J. Gastroenterol. 34:130, 1960. **13.** Stewart, W. H., et al., in Kelley, V. C.: Brenneman-McQuarrie-Kelley Practice of Pediatrics, Maryland, Prior, 1960, vol. II, chap. 5, p. 19. **14.** Wellman, W. E., and Herrell, W. E., in Kelley, V. C.: Brenneman-McQuarrie-Kelley Practice of Pediatrics, Maryland, Prior, 1960, vol. I, chap. 44, p. 13. **15.** Wenckert, A., and Robertson, B.: Acta chir. scandinav. 120:79, 1960. **16.** Alstead, S.: Dilling's Clinical Pharmacology, ed. 20, London, Cassell, 1960, p. 462. **17.** Grover, F. W.: Texas J. Med. 57:355, 1961. **18.** Gardiner, W. P., and Gomila, R. R., Jr.: Scientific Exhibit, Venereal Disease Seminar, U.S. Public Health Service, Feb. 28-Mar. 3, 1961. **19.** Jacques, A. A., and Fuchs, V. H.: J. Louisiana M. Soc. 113:200, 1961. **20.** Nathan, L. A.: Scientific Exhibit, 15th Clinical Meet., A.M.A., Denver, Col., Nov. 26-30, 1961. **21.** Ullman, A.: Delaware M. J. 32:97, 1960. **22.** Lamphier, T.A.: Scientific Exhibit, New York State M. Soc. Meet., New York, May 7-13, 1960. **23.** Freier, A.: Paper presented at Michigan Soc. Obst. & Gynec., Detroit, May 3, 1961. **24.** Logan, K. M.: Scientific Exhibit, Ann. Meet., Ohio Acad. Gen. Practice, Cincinnati, Sept. 13-14, 1961. **25.** Altemeier, W. A., and Wulsin, J. H. (A.M.A. Council on Drugs Report): J.A.M.A. 173:527, 1960. **26.** Krol, W. J.: J. Abdom. Surg. 3:78, 1961. **27.** Potempa, J.: Med. Klin. 56:352, 1961.

In Brief

The dependability of Terramycin in daily practice is based on its broad range of antimicrobial effectiveness, excellent toleration, and low order of toxicity. As with other broad-spectrum antibiotics, overgrowth of nonsusceptible organisms may develop. If this occurs, discontinue the medication and institute appropriate specific therapy as indicated by susceptibility testing. Glossitis and allergic reactions to Terramycin are rare. Aluminum hydroxide gel may decrease antibiotic absorption and is contraindicated. For complete dosage, administration, and precaution information, read package insert before using.

More detailed professional information available on request.

Terramycin®

OXYTETRACYCLINE WITH GLUCOSAMINE

PEDIATRIC DROPS 5 mg./drop (100 mg./cc.)

SYRUP 125 mg./tsp. (5 cc.)

Science for the world's well-being® Pfizer PFIZER LABORATORIES Division, Chas. Pfizer & Co., Inc. New York 17, N.Y.

"How do you feel lately, Mrs. K?" "Well, Doctor, some customers still get on my nerves'... but somehow this doesn't bother me as much... I feel better now and people seem easier to get along with..." "Feel sleepy?" "No, nothing like that."

this could be your "anxiety patient" on

TRIPIDONE

MEPHENOXALONE LEDERLE

In the treatment of mild to moderate tension and anxiety, the normalizing effect of TRIPIDONE leaves the patient emotionally stable, mentally alert. Adult dose: One 400 mg. tablet, four times daily. Supplied: Half-scored tablets, 400 mg., bottle of 50.

Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle



Theragran®

SQUIBB VITAMINS FOR THERAPY

For your patients with infections or other illness who need therapeutic vitamin support. Ea Theragran supplies the essential vitamins in tru therapeutic amounts:

Vitamin A	25,000 U.S.P. Un
Vitamin D	1,000 U.S.P. Un
Thiamine Mononitrate	10 m
Riboflavin	10 m
Niacinamide	100 m
Vitamin C	200 m
Pyridoxine Hydrochloride	5 m
Calcium Pantothenate	20 m
Vitamin B_{12}	5 m

SQUIBB *Squibb Quality—the Priceless Ingredient*

'Theragran'® is a Squibb trademark

"nutrition...present as a modifying or complicating factor in nearly every illness or disease state"[1]

1. Youmans, J. B.: Am. J. Med. 25:659 (Nov.) 1958

diac diseases "Who can say, for example, whether the patient chronically th myocardial failure may not have a poorer myocardium because of a moderate ency in the vitamin B-complex? Something is known of the relationship of vitamin the intercellular ground substance and repair of tissues. One may speculate upon ffects of a deficiency of this vitamin, short of scurvy, upon the tissues in chronic e."[2] 2. Kampmeier, R. H.: Am. J. Med. 25:662 (Nov.) 1958.

nritis "It is our practice to prescribe a multiple vitamin preparation to patients rheumatoid arthritis simply to insure nutritional adequacy . . ."[3]
ez-Herlihy, L.: Lahey Clinic Bull. 11:12 (July-Sept.) 1958.

estive diseases Symptoms attributable to B-vitamin deficiency are comy observed in patients on peptic ulcer diets.[4] Daily administration of therapeutic ins to patients with hepatitis and cirrhosis is recommended by the National rch Council.[5] 4. Sebrell, W. H.: Am. J. Med. 25:673 (Nov.) 1958. 5. Pollack, H., and Halpern, S. L.: Therapeutic Nutrition, National Academy of Sciences and National Research Council, Washington, D. C., 1952, p. 57.

enerative diseases "Studies by Wexberg, Jolliffe and others have indithat many of the symptoms attributed in the past to senility or to cerebral arteriosis seem to respond with remarkable speed to the administration of vitamins, ularly niacin and ascorbic acid. These facts indicate that the vitamin reserve of persons is lowered, even to the danger point, more than is the case in the average ican adult."[6] 6. Overholser, W., and Fong, T.C.C. in Stieglitz, E. J.: Geriatric Medicine, 3rd edition, J. B. Lippincott, Philadelphia, 1954, p. 264.

ctious diseases Infections cause a lowering of ascorbic acid levels in the a; and the absorption of this vitamin is reduced in diarrheal states.[7] 7. Goldsmith, G A.: on Vitamin C. The New York Academy of Sciences, New York City, Oct. 7 and 8, 1960. Reported in: Medical Science 8:772 (Dec.10) 1960.

betes Diabetics, like all patients on restricted diets, require an extra source mins.[8] "Rigidly limiting the bread intake of the diabetic patient automatically nates a large amount of thiamin from the diet. . . . There is some evidence of erence with normal riboflavin utilization during catabolic episodes."[9]
G. G.: Diseases of Metabolism 4th edition W. B. Saunders, Philadelphia, 1959, p. 812. 9. Pollack, H.: Am. J. Med. 25:708 (Nov.) 1958.

ILL INFORMATION SEE YOUR SQUIBB PRODUCT REFERENCE OR PRODUCT BRIEF.

You and your patients

should read

the story beginning on page 69—

December, Reader's Digest.

It deals tersely and thoughtfully

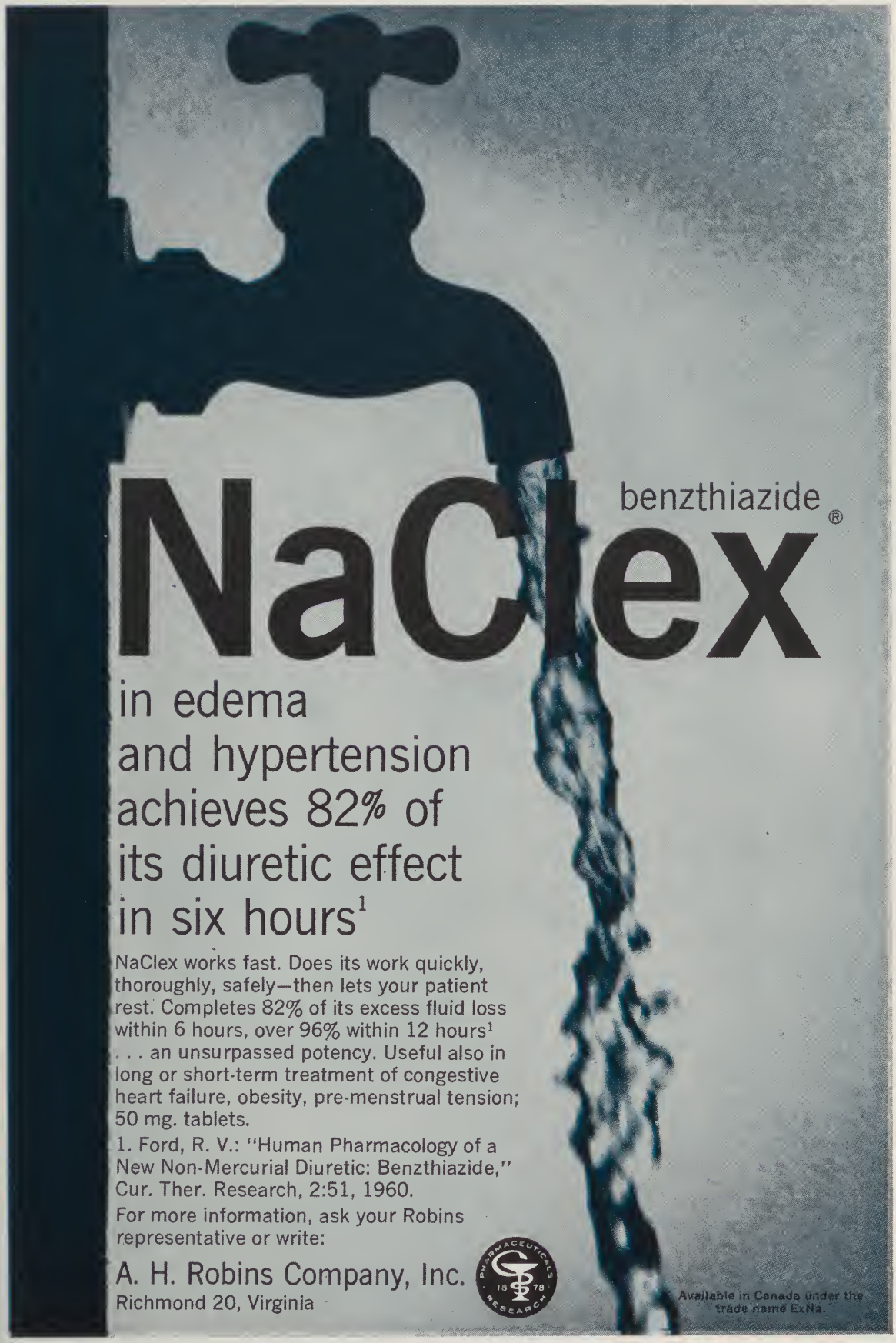
with major issues

raised in the investigation of

the prescription drug

industry.

This message is brought to you on behalf
of the producers of prescription drugs.
Pharmaceutical Manufacturers Association
1411 K. Street, N.W., Washington, D.C.


benzthiazide®
NaClex
in edema
and hypertension
achieves 82% of
its diuretic effect
in six hours[1]
NaClex works fast. Does its work quickly, thoroughly, safely—then lets your patient rest. Completes 82% of its excess fluid loss within 6 hours, over 96% within 12 hours[1] . . . an unsurpassed potency. Useful also in long or short-term treatment of congestive heart failure, obesity, pre-menstrual tension; 50 mg. tablets.
1. Ford, R. V.: "Human Pharmacology of a New Non-Mercurial Diuretic: Benzthiazide," Cur. Ther. Research, 2:51, 1960.
For more information, ask your Robins representative or write:
A. H. Robins Company, Inc.
Richmond 20, Virginia
PHARMACEUTICAL RESEARCH 1878
Available in Canada under the trade name ExNa.



Emotional control regained . . . a family restored . . . thanks to a physician and 'Thorazine'

During the past seven years, 'Thorazine' has become the treatment of choice for moderate to severe mental and emotional disturbances, because it is:

- specific enough to relieve underlying fear and apprehension
- profound enough to control hyperactivity and excitement
- flexible enough so that in severe cases dosage may be raised to two or three times the recommended starting level

Experience in over 14,000,000 Americans confirms the reassuring fact that, in most patients, the potential benefits of 'Thorazine' far outweigh its possible undesirable effects.

Of special value in mental and emotional disturbances: Tablets for initial therapy; Injection (Ampuls and Vials) for prompt control; Spansule® sustained release capsules for all-day or all-night therapy with a single oral dose.

Thorazine® brand of chlorpromazine
a fundamental drug in both
office and hospital practice
Smith Kline & French Laboratories SK&F

posed by professional models

'THORAZINE' PRESCRIBING INFORMATION

Because of its pronounced calming effect, 'Thorazine' is an outstanding agent for patients with mental and emotional disturbances, particularly those with symptoms of agitation and hyperactivity. In severe cases, initial use of intramuscular administration may be desirable to control symptoms promptly.

Before prescribing 'Thorazine' for other indications than those given below, the physician should be familiar with the dosage, side effects, cautions and contraindications for such uses. This information is available in the *Thorazine® Reference Manual* and *Physicians' Desk Reference,* and from your SK&F representative or your pharmacist.

ADMINISTRATION AND DOSAGE

Dosage should always be adjusted to the response of the individual and according to the severity of the condition. It is important to increase dosage until symptoms are controlled or side effects become troublesome. In emaciated or senile patients, dosage increases should be made more gradually than in other patients.

ADULT DOSAGE

Mental and Emotional Disturbances (e.g., agitation, excitement, or anxiety)—*Starting oral dosage* is 10 mg. t.i.d. or q.i.d., or 25 mg. b.i.d. or t.i.d. After a day or two, dosage may be increased by increments of 20 mg. to 50 mg. daily, at semiweekly intervals, until maximum clinical response is achieved. Continue dosage at this level for at least two weeks; then it can usually be reduced to a maintenance level. A daily dosage of 200 mg. is "average," but some patients may require substantially higher dosages. Discharged mental patients, for example, may require daily dosages as high as 800 mg. *Starting intramuscular dose* is 25 mg. (1 cc.). If necessary, and if no hypotension occurs, repeat the initial dose in one hour. Subsequent dosages should be oral, starting at 25 mg. to 50 mg. t.i.d.

Alcoholism—Severely agitated patients: *Starting intramuscular dose* is 25 mg. to 50 mg. (1-2 cc.). Repeat initial dose if necessary and if no hypotension occurs. Start subsequent oral dosages at 25 mg. to 50 mg. t.i.d. **Agitated but manageable patients:** *Starting oral dose* is 50 mg., followed by 25 mg. to 50 mg. t.i.d. For ambulatory patients with withdrawal symptoms or sober chronic alcoholics, *starting oral dosage* is 10 mg. t.i.d. or q.i.d., or 25 mg. b.i.d. or t.i.d. Patients in a stuporous condition should be allowed to sleep off some of the effects of the alcohol before 'Thorazine' is administered.

CHILDREN'S DOSAGE

For Behavior Disorders—*Oral dosage* is on the basis of ¼ mg./lb. of body weight q4-6h, until symptoms are controlled (i.e., for 40 lb. child—10 mg. q4-6h). *Rectal dosage* is on the basis of ½ mg./lb. of body weight q6-8h, p.r.n. (i.e., for 20-30 lb. child—half of a 25 mg. suppository q6-8h). *Intramuscular dosage* is on the basis of ¼ mg./lb. of body weight q6-8h, p.r.n. In children up to 5 years (or 50 lbs.)—not over 40 mg./day; in children 5-12 years (or 50-100 lbs.)—not over 75 mg./day except in extreme unmanageable cases. In severe cases, higher dosages than those recommended above may be necessary. In such cases, 50-100 mg. daily has been used and, in older children, as much as 200 mg. daily or more may be required.

IMPORTANT NOTES ON INJECTION

Except for acute ambulatory cases, parenteral administration should generally be reserved for bedfast patients. Parenteral administration should always be made with the patient lying down and remaining so for at least ½ hour afterward because of possible hypotensive effects. The injection should be given *slowly, deep* into the upper outer quadrant of the buttock. If irritation and pain at the site of injection are problems, dilution of 'Thorazine' Injection with physiologic saline solution or 2% procaine solution may be helpful. Subcutaneous administration is not advisable, and care should be taken to avoid injecting undiluted 'Thorazine' Injection into a vein. Intravenous administration is recommended only for severe hiccups and surgery.

'Thorazine' Injection should not be mixed with other agents in the syringe. Because contact dermatitis has been reported with 'Thorazine', nurses or others giving frequent injections should avoid getting the solution on hands or clothing. 'Thorazine' Injection should be protected from light, since exposure may cause discoloration. Slight yellowish discoloration will not alter potency or efficacy. If markedly discolored, the solution should be discarded.

SIDE EFFECTS

The drowsiness caused by 'Thorazine' is usually mild to moderate and disappears after the first or second week of therapy. If, however, drowsiness is troublesome, it can usually be controlled by lowering the dosage or by administering small amounts of dextro amphetamine.

Other side effects reported occasionally are dryness of the mouth, nasal congestion, some constipation, miosis in a few patients and, very rarely, mydriasis.

Mild fever (99°F.) may occur occasionally during the first days of therapy with large intramuscular doses.

Some patients have an increased appetite and gain weight, but usually reach a plateau beyond which they do not gain.

CAUTIONS

Jaundice: The over-all incidence of jaundice due to 'Thorazine' has been low—regardless of indication, dosage, or mode of administration. It appears to be related to duration of therapy. Few cases have occurred in less than one week or after six weeks. The jaundice that has occurred mimics the obstructive type, is without parenchymal damage, and is usually promptly reversible upon the withdrawal of 'Thorazine'. Although the mechanism is not clearly understood, most investigators conclude that it is a sensitivity reaction in susceptible individuals.

There is no conclusive evidence to indicate that pre-existing liver disease makes the patient more susceptible to jaundice. (Patients with known alcoholic cirrhosis have been treated with 'Thorazine' without further alteration of liver function.) Nevertheless, 'Thorazine' should be used with due consideration in a patient with liver disease.

If a patient on 'Thorazine' suddenly develops fever with grippe-like symptoms, his serum should be tested for increased bilirubin or his urine for the presence of bile. If any of these tests are positive, 'Thorazine' should be discontinued.

Because detailed liver function tests of 'Thorazine'-induced jaundice give a picture which mimics extrahepatic obstruction, exploratory laparotomy should be withheld until sufficient studies confirm extrahepatic obstruction.

Agranulocytosis: Agranulocytosis, although rare, has been reported. Patients should be observed regularly and asked to report at once the sudden appearance of sore throat or other signs of infection. If white blood counts and differential smears give an indication of cellular depression, the drug should be discontinued, and antibiotic and other suitable therapy should be instituted.

Because most reported cases have occurred between the fourth and the tenth weeks of treatment, patients on prolonged therapy should be observed particularly during that period.

A moderate suppression of total white blood cells, sometimes observed in patients on 'Thorazine' therapy, is not an indication for discontinuing 'Thorazine' unless accompanied by other symptoms.

Potentiation: 'Thorazine' prolongs and intensifies the action of many central nervous system depressants such as anesthetics, barbiturates and narcotics. Consequently, it is advisable to stop administration of such depressants before initiating 'Thorazine' therapy. Later the depressant agents may be reinstated, starting with low doses, and increasing according to response. Approximately ¼ to ½ the usual dosage of such agents is required when they are given in combination with 'Thorazine'. (However, 'Thorazine' does not potentiate the anticonvulsant action of barbiturates. In patients who are receiving anticonvulsants, the dosage of these agents—including barbiturates—should not be reduced if 'Thorazine' is started. Rather, 'Thorazine' should be started at a very low dosage and increased, if necessary.)

Hypotensive Effect: Postural hypotension and simple tachycardia may be noted in some patients. In these patients, momentary fainting and some dizziness are characteristic and usually occur shortly after the first parenteral dose, occasionally after a subsequent parenteral dose—very rarely after the first oral dose. In most cases, prompt recovery is spontaneous and all symptoms disappear within ½ to 2 hours with no subsequent ill effects. Occasionally, however, this hypotensive effect may be more severe and prolonged, producing a shock-like condition.

In consideration of possible hypotensive effects, the patient should be kept under observation (preferably lying down) for some time after the initial parenteral dose. If, on rare occasions, hypotension does occur, it can ordinarily be controlled by placing the patient in a recumbent position with head lowered and legs raised. If a vasoconstrictor is required, 'Levophed' and 'Neo-Synephrine'* are the most suitable. Other pressor agents, including epinephrine, are not recommended because phenothiazine derivatives may reverse the usual elevating action of these agents and cause a further lowering of blood pressure.

Antiemetic Effect: The antiemetic effect of 'Thorazine' may mask signs of overdosage of toxic drugs and may obscure diagnosis of conditions such as intestinal obstruction and brain tumor.

Dermatological Reactions: Dermatological reactions have been reported. Most have been of a mild urticarial type, suggesting allergic origin. Some appear to be due to photosensitivity, and patients on 'Thorazine' should avoid undue exposure to the summer sun.

Neuromuscular (Extrapyramidal) Reactions: With very high doses of 'Thorazine', as frequently used in psychiatric cases over long periods, a few patients have exhibited neuromuscular (extrapyramidal) reactions which closely resemble parkinsonism. Such symptoms are reversible and usually disappear within a short time after the dosage has been decreased or the drug temporarily withdrawn. These reactions can also be controlled by the concomitant administration of an anti-parkinsonism agent (see *Physicians' Desk Reference*). Depending on the severity of the symptoms, suitable supportive measures such as maintaining a clear airway and adequate hydration should be employed. When 'Thorazine' is reinstituted, it should be at a lower dosage.

Lactation: Moderate engorgement of the breast with lactation has been observed in female patients receiving very large doses of 'Thorazine'. This is a transitory condition which disappears on reduction of dosage or withdrawal of the drug.

CONTRAINDICATIONS

'Thorazine' is contraindicated in comatose states due to central nervous system depressants (alcohol, barbiturates, narcotics, etc.) and also in patients under the influence of large amounts of barbiturates or narcotics.

SUPPLIED

Tablets, 10 mg., 25 mg., 50 mg. and 100 mg., in bottles of 50, 500 and 5000; 200 mg., for use in mental hospitals, in bottles of 500 and 5000. (Each tablet contains 10 mg., 25 mg., 50 mg., 100 mg., or 200 mg. of chlorpromazine hydrochloride.)

Spansule® capsules, 30 mg., 75 mg., 150 mg. and 200 mg., in bottles of 30, 250 and 1500; also 300 mg., in bottles of 30 and 1500. (Each 'Spansule' capsule contains 30 mg., 75 mg., 150 mg., 200 mg., or 300 mg. of chlorpromazine hydrochloride.)

Ampuls, 1 cc. and 2 cc. (25 mg./cc.), in boxes of 6, 100 and 500. (Each cc. contains, in aqueous solution, 25 mg. of chlorpromazine hydrochloride; 2 mg. of ascorbic acid; 1 mg. of sodium bisulfite; 1 mg. of sodium sulfite; 6 mg. of sodium chloride.)

Multiple-dose Vials, 10 cc. (25 mg./cc.), in boxes of 1, 20 and 100. (Each cc. contains, in aqueous solution, 25 mg. of chlorpromazine hydrochloride; 2 mg. of ascorbic acid; 1 mg. of sodium bisulfite; 1 mg. of sodium sulfite; 1 mg. of sodium chloride; 2% benzyl alcohol as preservative.)

Syrup, 10 mg./teaspoonful (5 cc.), in 4 fl. oz. bottles. (Each 5 cc. contains 10 mg. of chlorpromazine hydrochloride.)

Suppositories, 25 mg. and 100 mg., in boxes of 6. (Each suppository contains 25 mg. or 100 mg. of chlorpromazine; glycerin, glyceryl monopalmitate, glyceryl monostearate, hydrogenated coccanut oil fatty acids, hydrogenated palm kernel oil fatty acids, lecithin.)

Concentrate (for hospital use), 30 mg./cc., in 4 fl. oz. bottles, in cartons of 12 and 36, and in gallon bottles. (Each cc. contains 30 mg. of chlorpromazine hydrochloride.)

---

*'Levophed' and 'Neo-Synephrine' are the trademarks (Reg. U.S. Pat. Off.) of Winthrop Laboratories for its brands of levarterenol and phenylephrine respectively.

"The first prescription I ever wrote was for 'Empirin' with Codeine...



and it is still my stand-by for pain relief today."

PICTURE THE YOUNG DOCTOR with his first private patient, about thirty-five years ago. This is the moment, after years of study and guidance in classroom and at hospital bedside, when he assumes the full weight of responsibility for the well-being of his patient. He makes his diagnosis. The patient is in considerable pain, and his first concern is to relieve this discomfort. He writes a prescription for a new analgesic, a convenient drug combination that he believes will be of help. This patient (and many others to follow) finds gratifying relief, and the physician continues to rely upon this medication as the years go by.

Could this have been you in the 1920's? That was when 'Empirin' Compound with Codeine first came into general use (although plain 'Empirin' Compound has been well-known since the influenza epidemic of 1918). Satisfaction through the years has prompted doctors everywhere to depend on 'Empirin' with Codeine for relief of most all degrees of pain. For with this well-tolerated, reliable analgesic combination you can be sure of results, and feel secure in the fact that the liability of addiction is negligible.

Please accept our thanks for continuing to place your trust in a product that has been used more widely in medicine each year for the past four decades.

'EMPIRIN' COMPOUND with CODEINE PHOSPHATE*

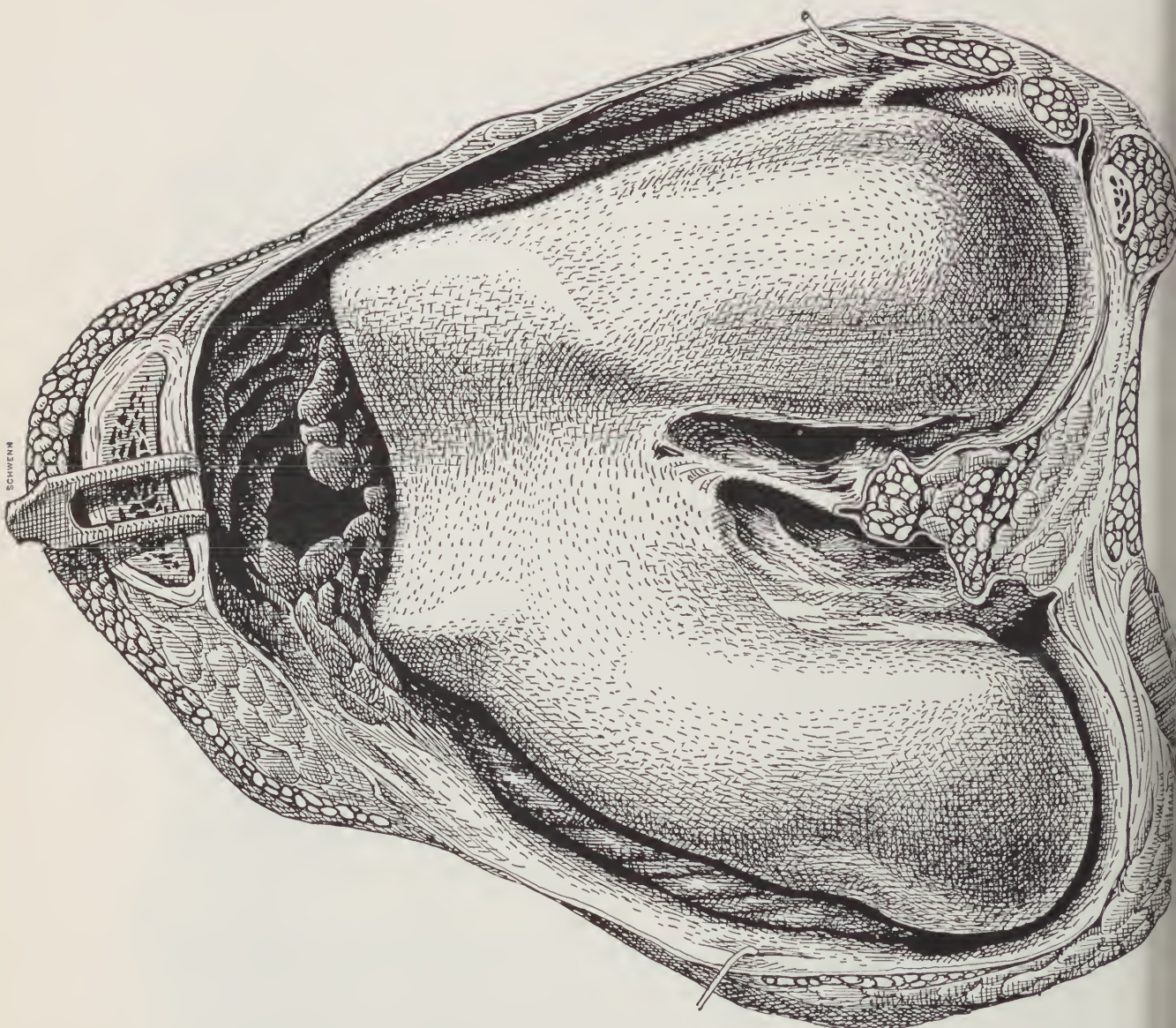
Acetophenetidin, gr. 2½
Acetylsalicylic Acid, gr. 3½
Caffeine, gr. ½

Remember there are now four strengths available...

*Warning—May be habit-forming.
Subject to Federal Narcotic Regulations.

No. 1 — gr. ⅛
No. 2 — gr. ¼
No. 3 — gr. ½
No. 4 — gr. 1

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N. Y.



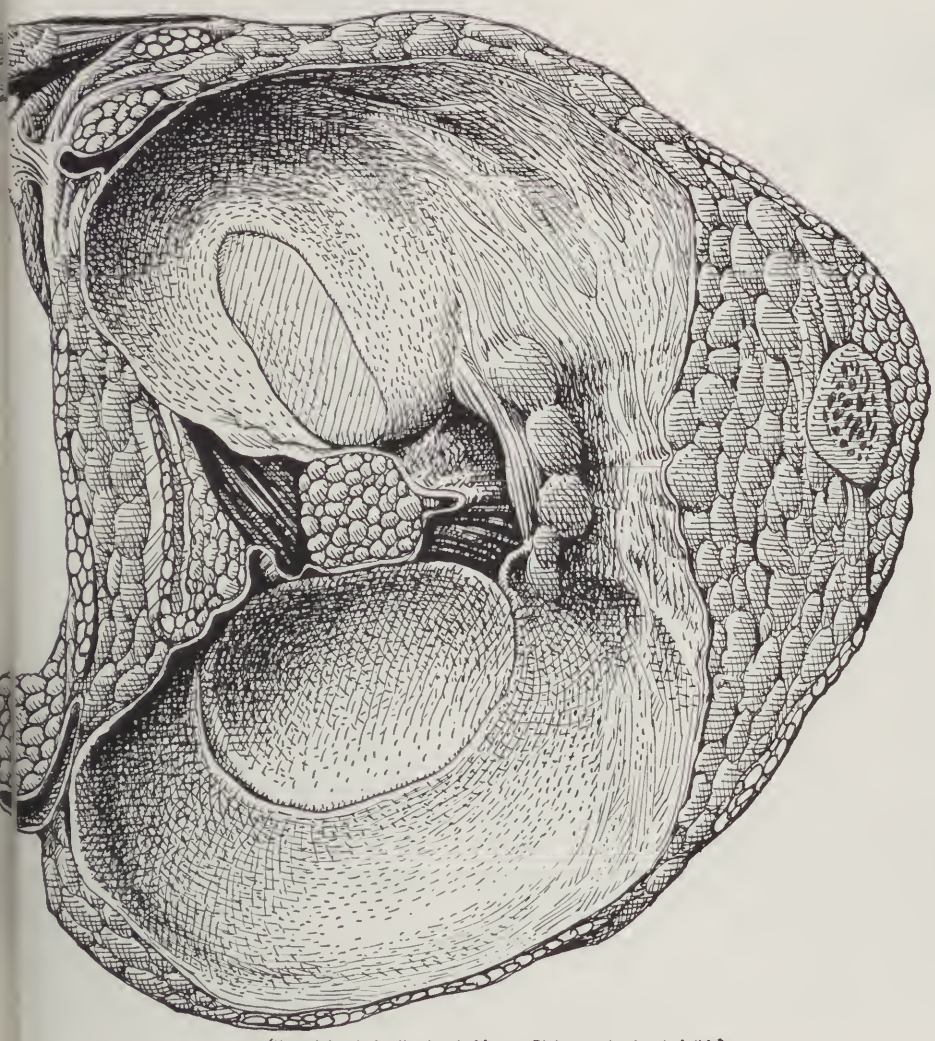
because patients are more than arthritic joints... controlling inflammatory symptoms is frequently not enoug

Even cortisone, with its severe hormonal reactions, can effectively control inflammatory and rheum toid symptoms. But a patient is more than the sum of his parts – and the joint is only part of a wh patient. Symptomatic control is but one aspect of modern corticotherapy, because what is good for t symptom may also be bad for the patient.

Unsurpassed "General Purpose" and "Special Purpose" Corticosteroid...
Outstanding for Short- and Long-term Therapy

Aristocort®

Triamcinolone Lederle



(Knee Joint, Left: distal end of femur; Right: proximal end of tibia)

ARISTOCORT is an outstanding "special purpose" steroid when the complicating problem is increased appetite and weight gain, sodium retention and edema, cardiac disease, hypertension or emotional disturbance and insomnia.

ARISTOCORT provides unsurpassed anti-inflammatory control without sodium retention or edema — without the undesirable psychic stimulation and voracious appetite.

Supplied: Scored tablets (three strengths), syrup, parenteral and various topical forms. Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

Lederle LEDERLE LABORATORIES · A Division of AMERICAN CYANAMID COMPANY · Pearl River, New York



Medrol... (methylprednisolone) a form for every use

MEDROL* TABLETS
2 mg. in bottles of 30 and 100
4 mg. in bottles of 30, 100 and 500
16 mg. in bottles of 50

SOLU-MEDROL*
40 mg. in 1 cc. Mix-O-Vial*

MEDROL MEDULES*
4 mg. in bottles of 30, 100 and 500 capsules
2 mg. in bottles of 30 and 100

DEP
MEI
acetat
40 m
in 1
5 cc.
20 m
in 5



MEDROL
WITH ORTHOXINE*
TABLETS
in bottles of 30 and 100

VERIDERM† MEDROL acetate
AND
NEO-MEDROL* acetate
0.25% and 1%
in 5- and 20-Gm. tubes

MEDAPRIN* TABLETS
in bottles of 100 and 500

*Trademark, Reg. U.S. Pat. Off.
†Trademark
Copyright 1961, The Upjohn Company
September, 1961

The Upjohn Company, Kalamazoo, Michigan **Upjohn**



Put your low-back patient back on the payroll

Soma relieves stiffness —stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, *fast!*

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

This was demonstrated by Kestler in a controlled study: average time for full recovery was 11.5 days with Soma, 41 days without Soma. (J.A.M.A. **172**:2039, April 30, 1960.)

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets.
USUAL DOSAGE: 1 TABLET Q.I.D.

The muscle relaxant with an independent pain-relieving action

SOMA®

(carisoprodol, Wallace)

Wallace Laboratories, Cranbury, New Jersey

INDEX TO ADVERTISERS

In accepting advertising for publication, the JOURNAL has exercised reasonable precaution to insure that only reputable, factual advertisements are included. Nevertheless, claims made by advertisers in behalf of goods, services, and medicinal preparations, apparatus or physical appliances are understood to be those of the advertiser. Neither sanction nor endorsement of such is warranted, stated, or implied by the association.

	Adv. page
Abars Pharmaceuticals	center
Abbott Laboratories	insert, 24, 25
Ames Company	51
Appalachian Hall	12
Blue Cross	11
Burroughs Wellcome	42, 43
Chicago Medical Society	12
Ciba Products	6
Endo Laboratories	16
Fesler Company	7
First Federal of Jackson	9
First Texas Pharmaceuticals	20
Florida Citrus Commission	32
Glenbrook Laboratories	23
Hill Crest Sanitarium	28
Kay Surgical	7
Lederle Laboratories	14, 15, 35, 44, 45, 50
Eli Lilly	front cover, 30
P. Lorillard	before center
Mission Pharmacal Company	21
Organon, Inc.	after center
Parke, Davis and Company	2, 3
Pfizer Laboratories	insert
Physicians Casualty	7
Pharmaceutical Manufacturers	38
A. H. Robins	18, 22, 39
Roche Laboratories	back cover
J. B. Roerig	33
St. Paul Fire and Marine Insurance Company	28
Schering Corporation	29
G. D. Searle	31
Smith, Kline & French	40, 41
E. R. Squibb	10, 36, 37
U. S. Brewers	19
U. S. Vitamin	26, 27
Upjohn Company	13, 46, 47
Wallace Laboratories	17, 48
Winthrop Laboratories	4, 34

Articles for Publication

Manuscripts should be typewritten, double spaced on one side of the paper. Tables, charts, and tabulations should be submitted on separate sheets but their position in the text should be indicated. Authors are encouraged to limit bibliographies to 10 references, written in conformation to style utilized in scientific publications of the American Medical Association. Articles are accepted for publication on the condition that they have not been previously published and are contributed solely to this JOURNAL.

A thesis summary of 75 to 100 words must accompany each manuscript separately from the text. Figures and drawings are acceptable when prepared with black ink on white paper. Photographs for illustrations should be unmounted, untrimmed, glossy prints and all such material must be identified. No charges are made to authors for illustration engravings not exceeding four column inches per printed page.

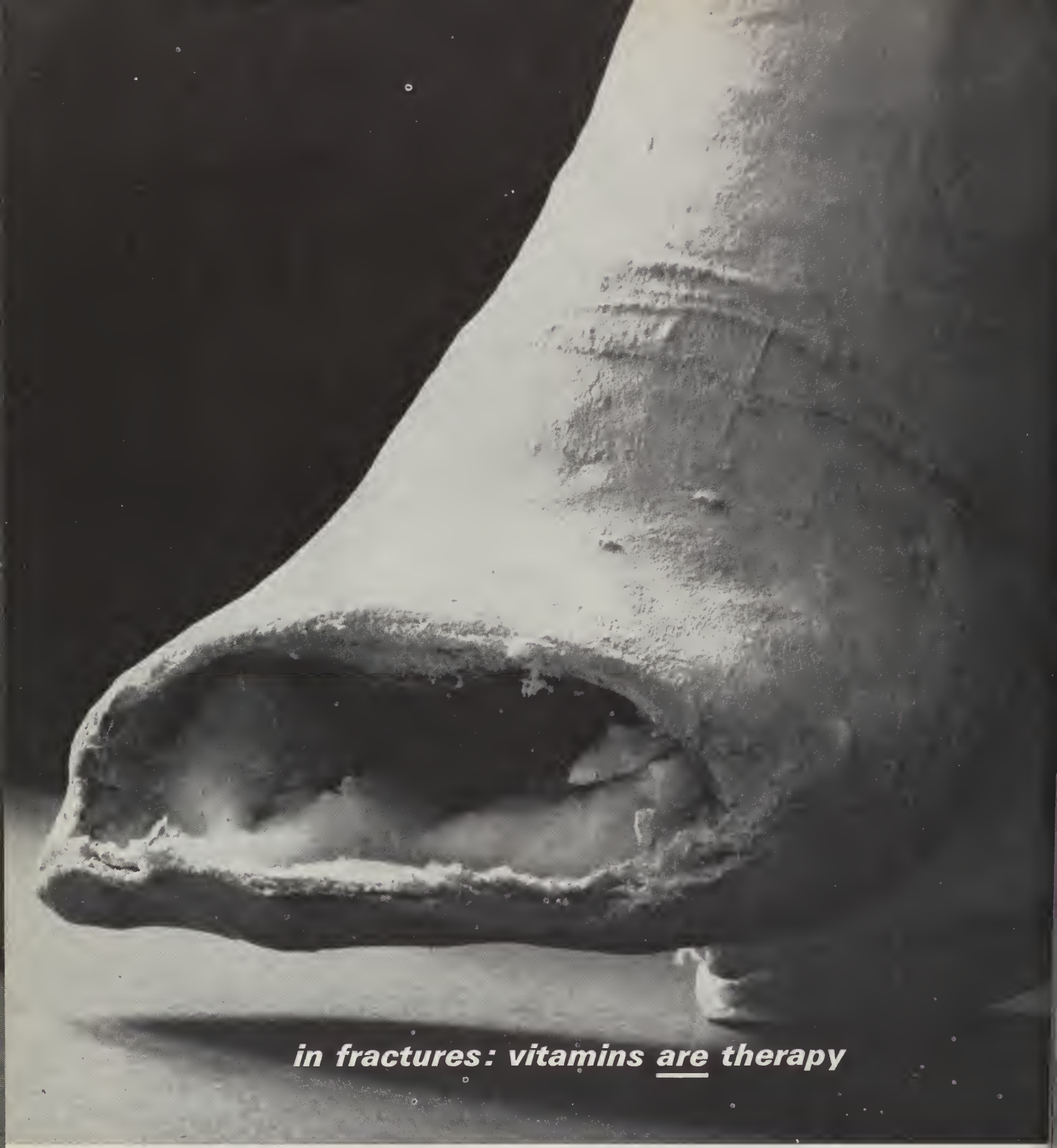
Reprints may be obtained at cost from the association. The right is reserved to decline any manuscript for publication. Ordinarily, manuscripts submitted will be acknowledged whether published or not.

CLASSIFIED

Openings for residents in psychiatry in 915 bed progressive hospital. Three year approved psychiatric residency through affiliation with Louisiana State University and Tulane University Medical Schools. Opportunities for teaching and research; psychoanalysis available in third year by private arrangement; organized training while living on the beautiful Gulf Coast. Starting salaries from $6,995 to $10,635, plus many fringe benefits. For information write Dr. J. T. May, Associate Chief of Staff, VA Hospital, Gulfport, Mississippi.

SUPER SUBURB

Demographers and population explosion investigators are getting chuckles out of a study of a Chicago suburb. The community's population zoomed from a mere 200 to 4,500 in just over two years and most families there have six to ten children. And the name? Romeoville, Illinois!



Few factors are more fundamental to tissue and bone healing than nutrition. Therapeutic allowances of B and C vitamins are important for rapid replenishment of vitamin reserves which may be depleted by the stress of fractures. Metabolic support with STRESSCAPS is a useful adjunct to an uneventful recovery. Supplied in decorative "reminder" jars of 30 and 100.

Each capsule contains:	
Vitamin B_1 (Thiamine Mononitrate)	10
Vitamin B_2 (Riboflavin)	10
Niacinamide	100
Vitamin C (Ascorbic Acid)	300
Vitamin B_6 (Pyridoxine HCl)	2
Vitamin B_{12} Crystalline	4 m
Calcium Pantothenate	20

Recommended intake: Adults, 1 capsule or as directed by physician, for the treat of vitamin deficiencies.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N.Y.

STRESSCAPS®

Stress Formula Vitamins Lederle

AN AMES CLINIQUICK®

CLINICAL BRIEFS FOR MODERN PRACTICE

Quality of diabetic control & Quantitation of urine-sugar

In the diagnosis of diabetes, the urine-sugar test may be little more than a screening adjuvant. But in the everyday management of diabetes, the urine-sugar test is the most practical guide we have.[1] Routine testing, however, should not only detect, but also determine the **quantity** of urine-sugar. Quantitative testing is essential for satisfactory adjustment of diet, exercise and medication. Furthermore, day-to-day control of diabetes is in the patient's hands. Quality of control is thus best assured by the urine-sugar test which permits the most accurate quantitation practicable **by the patient.**



CLINITEST® permits a high degree of practical accuracy and is very convenient.[2] Its clinically standardized sensitivity avoids trace reactions, and a standardized color chart minimizes error or indecision in reading results. CLINITEST distinguishes clearly the critical ¼%, ½%, ¾%, 1% and 2% urine-sugars. It is the only simple test that can show if the urine-sugar is over 2%.[3] Your nurse or technician will appreciate these advantages; your patient on oral hypoglycemic therapy will find them helpful. Furthermore, CLINITEST may be a vital adjunct in the management of the diabetic child or the adult with severe diabetes.

(1) Danowski, T. S.: Diabetes Mellitus, Baltimore, Williams & Wilkins, 1957, p. 239. (2) McCune, W. G.: M. Clin. North America 44:1479, 1960. (3) Ackerman, R. F., et al.: Diabetes 7:398, 1958.

FOR PRACTICAL ACCURACY OF URINE-SUGAR QUANTITATION

COLOR-CALIBRATED

CLINITEST®

BRAND Reagent Tablets

Standardized urine-sugar test...with **GRAPHIC ANALYSIS RECORD**

A line connecting successive urine-sugar readings reveals at a glance how well diabetics are cooperating. Each CLINITEST Set and tablet refill contains this physician-patient aid. 01561

AMES COMPANY, INC Elkhart Indiana

ANXIETY TENSION & THE LIBRIUM EFFECT

LIBRARIAN
NAT LIBRARY OF MED
WASHINGTON 25 D C

A patient treated with Librium feels different, even after a few doses. He appears different to his family and to his physician. Different, in the sense of a change from the previous state of anxiety and tension, and also freed from the sensations created by daytime sedatives or tranquilizers. That the striking difference in Librium was first observed in a series of ingenious animal experiments is mainly of theoretical interest. Of more practical importance, for example, is that Librium lacks any depressant effect—a fact which can assume overriding clinical importance. And this is but one of the ways in which the difference can be observed. Librium deserves to be studied at first hand. Why not select twelve of your patients who show the emotional or somatic signs of anxiety, tension, or agitation, place six of them on Librium – and see the difference in effect for yourself.

THE SUCCESSO
THE TRANQUILI

Consult literature and dosage in
available on request, before p

LIBRIUM® Hydrochloride – 7-chloro-2-methyl
phenyl-3H-1,4-benzodiazepine 4-oxide hydro

ROCHE
ROCHE LABORATORIES
Division of Hoffmann-La Roche Inc
Nutley 10, New Jersey

JOURNAL OF THE Mississippi STATE MEDICAL ASSOCIATION

FEBRUARY 1962

ici of propionyl erythromycin and its lauryl sulfate salt in
3 ents with common bacterial respiratory infections.

Tonsillitis*
92.3%
235 patients

Acute Streptococcus Pharyngitis*
88.3%
317 patients

Bronchitis* (Bacterial Complications)
95.3%
85 patients

Pneumonia*
88.6%
166 patients

lefe ces available on request.

Ilosone®
works
to
speed
recovery

The sual dosage for infants and children under twenty-five pounds is 5 mg. per
oul every six hours; for children twenty-five to fifty pounds, 125 mg. every six hours.
or dults and children over fifty pounds, the usual dosage is 250 mg. every six hours.
In ore severe or deep-seated infections, these dosages may be doubled.
ilable as: Pulvules®—125 and 250 mg.†; Oral Suspension—125 mg.† per 5-cc.
a onful; and Drops—5 mg.† per drop.

is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and
mpany, Indianapolis 6, Indiana.
so (erythromycin estolate, Lilly) (propionyl erythromycin ester lauryl sulfate)
as uivalent

Lilly

232539

This Month . . . Local Anesthesia in Major and Minor Surgery, Perinatal Mortality Conferences, Hip Fracture Management

M.S.M.A

when urinary tract infections present a therapeutic challenge...

CHLOROMYCETIN®

(chloramphenicol, Parke-Davis)

Often recurrent...often resistant to treatment, urinary tract infections are among the most frequent and troublesome types of infections seen in clinical practice.[1,2] In such infections, successful therapy is usually dependent on identification and susceptibility testing of invading organisms, administration of appropriate antibacterial agents, and correction of obstruction or other underlying pathology.

Of these agents, one author reports: "Chloramphenicol still has the widest and most effective activity range against infections of the urinary tract. It is particularly useful against the coliform group, certain Proteus species, the micrococci and the enterococci."[1] CHLOROMYCETIN is of particular value in the management of urinary tract infections caused by *Escherichia coli* and *Aerobacter aerogenes*.[3] In addition to these clinical findings, the wide antibacterial range of CHLOROMYCETIN continues to be confirmed by recent *in vitro* studies.[4-6]

CHLOROMYCETIN (chloramphenicol, Parke-Davis) is available in various forms, including Kapseals® of 250 mg., in bottles of 16 and 100. See package insert for details of administration and dosage.

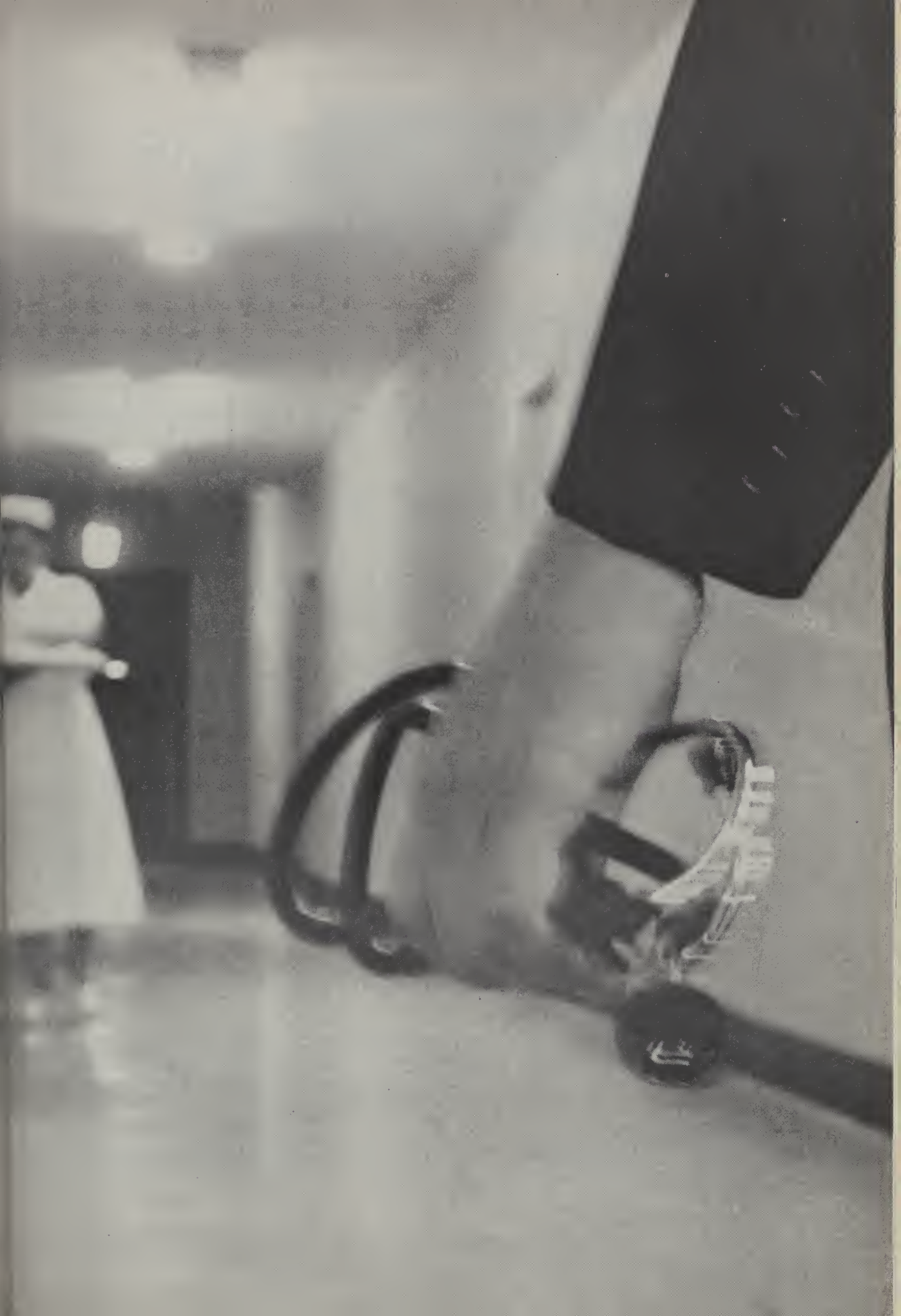
Warning: Serious and even fatal blood dyscrasias (aplastic anemia, hypoplastic anemia, thrombocytopenia, granulocytopenia) are known to occur after the administration of chloramphenicol. Blood dyscrasias have occurred after both short-term and prolonged therapy with this drug. Bearing in mind the possibility that such reactions may occur, chloramphenicol should be used only for serious infections caused by organisms which are susceptible to its antibacterial effects. Chloramphenicol should not be used when other less potentially dangerous agents will be effective, or in the treatment of trivial infections, such as colds, influenza, or viral infections of the throat, or as a prophylactic agent. *Precautions:* It is essential that adequate blood studies be made during treatment with the drug. While blood studies may detect early peripheral blood changes, such as leukopenia or granulocytopenia, before they become irreversible, such studies cannot be relied upon to detect bone marrow depression prior to development of aplastic anemia.

Refereneces: (1) Malone, F. J., Jr.: *Mil. Med.* **125**:836, 1960. (2) Martin, W. J.; Nichols, D. R., & Cook, E. N.: *Proc. Staff Meet. Mayo Clin.* **34**:187, 1959. (3) Ullman, A.: *Delaware M. J.* **32**:97, 1960. (4) Petersdorf, R. G.; Hook, E. W.; Curtin, J. A., & Grossberg, S. E.: *Bull. Johns Hopkins Hosp.* **108**:48, 1961. (5) Jolliff, C. R.; Engelhard, W. E.; Ohlsen, J. R.; Heidrick, P. J., & Cain, J. A.: *Antibiotics & Chemother.* **10**: 694, 1960. (6) Lind, H. E.: *Am. J. Proctol.* **11**:392, 1960.

68961

PARKE-DAVIS

PARKE, DAVIS & COMPANY, Detroit 32, Michigan



When it's more like "grippe" or



"flu" than a simple cold, but an antibiotic is not indicated... prescribe NEW WIN-CODIN* Tablets

New Win-Codin tablets provide greater symptomatic relief from influenza, colds and sinusitis than do simple analgesic-antihistamine combinations. New Win-Codin tablets contain a full complement of the most effective agents available to relieve general discomfort, bring down fever and lessen congestive symptoms.

Each tablet contains:

Codeine phosphate 15 mg.—to relieve local and generalized pain and control dry cough

Neo-Synephrine® 10 mg.—to shrink nasal membranes and open sinus ostia

Acetylsalicyclic acid 300 mg. (5 grains)—to reduce fever and relieve aching

Chlorpheniramine maleate 2 mg.—an antihistamine to shrink engorged membranes and lessen rhinorrhea

Ascorbic acid (vitamin C) 50 mg.—to increase resistance to infections†

New Win-Codin tablets will bring more comfort to many patients suffering from severe colds, influenza or sinusitis.

Average dose: Adults, 1 or 2 tablets three times daily; children 6 to 12 years, from ½ to 1 tablet three times daily.

Available in bottles of 100 (Class B narcotic).

*Trademark †For persons with vitamin C deficiency
Neo-Synephrine (brand of phenylephrine), trademark reg. U. S. Pat Off.

1551M

Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.

Winthrop LABORATORIES
New York 18, N. Y.

Volume III
Number 2
February 1962



JOURNAL of the Mississippi STATE MEDICAL ASSOCIATION

• EDITOR
WILLIAM M. DABNEY, M.D.

• ASSOCIATE EDITORS
DEWITT HAMRICK, M.D.
GEORGE H. MARTIN, M.D.

• MANAGING EDITOR
ROWLAND B. KENNEDY

• EDITORIAL ASSISTANT
BETTY M. SADLER

• PUBLICATIONS COMMITTEE
LAWRENCE W. LONG, M.D.
Chairman
B. B. O'MARA, M.D.
WILLIAM E. LOTTERHOS, M.D.
and the Editors

• THE ASSOCIATION
LAWRENCE W. LONG, M.D.
President
C. P. CRENSHAW, M.D.
President-elect
C. G. SUTHERLAND, M.D.
Secretary-Treasurer
B. B. O'MARA, M.D.
Speaker
HOWARD A. NELSON, M.D.
Vice Speaker
ROWLAND B. KENNEDY
Executive Secretary
CHARLES L. MATHEWS
Assistant Executive Secretary

The JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION is owned and published by the Mississippi State Medical Association, founded 1856. Editorial, executive, and business offices, 735 Riverside Drive, Jackson, Mississippi; office of publication, 1201-5 Bluff Street, Fulton, Missouri. Subscription rate, $5 per annum; $1 per copy, as available. Advertising rates furnished on request. Second-class postage paid at the post office at Fulton, Missouri.

CONTENTS

ORIGINAL PAPERS

Local Anesthesia in Major and Minor Surgery **49** DONALD M. GLOVER, M.D.

On Perinatal Mortality Conferences **58** DAVID G. WATSON, M.D., and LOIS M. MOSEY, M.D.

Hip Fracture Management: 125 Consecutive Cases **61** L. VAUGHN RUSH, JR., M.D., and LESLIE V. RUSH, M.D.

The Etiology of Sudden Blindness **66** S. G. MOUNGER, M.D.

SPECIAL FEATURES

Clinicopathological Conference XXV **69** Mississippi Baptist Hospital

EDITORIALS

Chiropractic: Public Health Hoax Number One **75** WILLIAM E. LOTTERHOS, M.D.

Let's Talk Mississippi Medical Training **77** Third in the Nation

Ceaseless Cecil Is at It Again **77** Another Legislative Trinket

Not Alone Unto the Private Practitioner **78** Whodda-Thought-It Department

THIS MONTH

The President Speaking **74** 'The Biggest Job'

The Literature **73** Books and Journals

Medical Organization **79** Doctors' Doings

Copyright 1962, Mississippi State Medical Association



"All the world's a stage..
And one man in his time
plays many parts,
His acts being seven ages..."*

*As You Like It, Act II, Sc. 7

through all seven ages of man

VISTARIL®

effective anxiety control with a wide margin of safety



in the "frantic forties"—For many patients in their "frantic forties," the pace never slackens—may even accelerate—while tensions multiply and physical resources dwindle. Out of this seedbed of stresses and anxieties grow much of the alcoholism, psychosomatic illness, and sympathetic overactivity of the middle years.

In each of these areas, VISTARIL is often effective alone or as an adjunct to other therapy. For example, in his series of 67 patients, King[1] found that 62 showed remission of anxiety, tension, nervousness and insomnia, as well as alleviation of symptoms associated with various functional and psychophysiological disturbances. He concludes that VISTARIL is well suited for use in the practice of internal medicine.

In the emergent situation, VISTARIL, administered parenterally, is a valuable aid to the physician in managing patients who escape psychic conflict via alcohol. According to Weiner and Bockman,[2] who obtained beneficial results in 81% of 175 patients studied, hydroxyzine (VISTARIL) may well be considered a tranquilizer of choice in the management of the acutely agitated alcoholic.

1. King, J. C.: Int. Rec. Med. 172:669, 1959. 2. Weiner, L. J., and Bockman, A. A.: Sci. Exhibit, A.M.A., Ann. Meet., New York City, June 26-30, 1961.

VISTARIL® CAPSULES AND ORAL SUSPENSION
HYDROXYZINE PAMOATE

VISTARIL® PARENTERAL SOLUTION
HYDROXYZINE HYDROCHLORIDE

Science for the world's well-being® Pfizer PFIZER LABORATORIES
Division, Chas. Pfizer & Co., Inc.
New York 17, New York

IN BRIEF VISTARIL®

VISTARIL, hydroxyzine pamoate (oral) and hydroxyzine hydrochloride (parenteral solution), is a calming agent unrelated chemically to phenothiazine, reserpine, and meprobamate.

VISTARIL acts rapidly in the symptomatic treatment of a variety of neuroses and other emotional disturbances manifested by anxiety, apprehension, or fear—whether occurring alone or complicating a physical illness. The versatility of VISTARIL in clinical indications is matched by wide patient range and a complete complement of dosage forms. The calmative effect of VISTARIL does not usually impair discrimination. No toxicity has been reported with the use of VISTARIL at the recommended dosage, and it has a remarkable record of freedom from adverse reactions.

INDICATIONS: VISTARIL is effective in premenstrual tension, the menopausal syndrome, tension headaches, alcoholic agitation, dentistry, and as an adjunct to psychotherapy. It is recommended for the management of anxiety associated with organic disturbances, such as digestive disorders, asthma, and dermatoses. Pediatric behavior problems and the emotional illnesses of senility are also effectively treated with VISTARIL.

ADMINISTRATION AND DOSAGE: Dosage varies with the state and response of each patient, rather than with weight, and should be individualized for optimum results. The usual adult oral dose ranges from 25 mg. t.i.d. to 100 mg. q.i.d. Usual children's oral dose: under 6 years, 50 mg. daily in divided doses; over 6 years, 50-100 mg. daily in divided doses.

Parenteral dosage for adult psychiatric and emotional emergencies, including acute alcoholism: I.M.—50-100 mg. Stat., and q.4-6h., p.r.n. I.V.—50 mg. Stat., maintain with 25-50 mg. I.V. q.4-6h., p.r.n.

SIDE EFFECTS: Drowsiness may occur in some patients; if so, it is usually transitory, disappearing within a few days of continued therapy or upon reduction of dosage. Dryness of mouth may be encountered at higher doses.

PRECAUTIONS: Drowsiness may occur in some patients. The potentiating action of hydroxyzine should be taken into account when the drug is used in conjunction with central nervous system depressants. Do not exceed 1 cc. per minute I.V. Do not give over 100 mg. per dose I.V. Parenteral therapy is usually for 24-48 hours, except when, in the judgment of the physician, longer-term therapy by this route is desirable.

SUPPLIED: VISTARIL *Parenteral Solution* (hydroxyzine hydrochloride)—10 cc. vials, 25 mg. per cc. and 50 mg. per cc.; 2 cc. ampules, 50 mg. per cc. VISTARIL *Capsules* (hydroxyzine pamoate)—25, 50, and 100 mg. VISTARIL *Oral Suspension* (hydroxyzine pamoate)—25 mg. per 5 cc. teaspoonful.

More detailed professional information available on request.

Science for the world's well-being®

Pfizer PFIZER LABORATORIES
Division, Chas. Pfizer & Co., Inc.
New York 17, New York

Winter Takes Heavy Time-Lost Toll among Working Force

On an average working day from now until the end of March, nearly 1.4 million civilian workers can be expected to be absent from their jobs because of illness, according to the Health Insurance Institute.

The winter months of January, February, and March take a heavy toll in time lost among the working force. Based on U. S. Department of Labor reports for these months in 1960 and 1961, the Institute said that on a typical working day from Jan. 1 through March 31, some 1,390,000 persons will miss work due to illness.

Of this figure, the duration of absence will be a workweek or more for 980,000 persons, and less than a workweek for 410,000 persons.

Broken down by month, the worst month this winter will probably be February, which over the past two years has had an average of 1,770,000 workers absent due to illness on any given day, with 1,231,000 of them absent for a week or more.

January trailed with 1,548,000 workers absent on an average day, while March averaged 1,452,000 absent. During this period, well over 2 per cent of employed civilians were absent from work on an average day.

Summer months generally produce the low months in absentee rates. July was 1960's low month with 1,015,000 workers absent because of illness on an average day, with 783,000 absent a week or more. June, with a figure of 1,076,000, was somewhat lower than July's 1,103,000 in 1961.

The financial loss caused by this absence from work was being absorbed in part through insuring mechanisms.

At the close of 1961, an estimated 43 million workers were assured that their income would continue in the event they were disabled by off-the-job illness or injury.

About three-fourths of these workers are protected by loss-of-income policies issued by insurance companies and the remainder are covered by other formal arrangements. In addition, said the Institute, millions of other workers have some degree of income protection through informal wage-continuation practices.

During 1961, insurance companies alone paid out an estimated $860 million in benefits to persons protected by loss of income policies, an increase of some 2.5 per cent over the $839 million paid out during 1960, said the Institute. Ten years earlier, in 1950, loss of income benefits totaled $383 million.

Fontana and Edwards — Congenital Cardiac Disorders

A Review of 357 Cases Studied Pathologically

New! This volume will reveal vital aspects of congenital cardiac diseases which will aid you in making prognoses and in making the differential diagnosis for a patient suspected of having a cardiac malformation. It is a significant statistical study of the natural history of congenital cardiac diseases, based on necropsy review of 357 cases. The study covers every case at the Mayo Clinic in a 34-year period plus 101 cases from outside sources. You'll find accurate information on: *frequency of occurrence; longevity; distribution on the basis of sex; causes of death of persons having cardiovascular malformations; and the frequency of occurrence of bacterial endocarditis and cerebral abscess among people with these malformations.*

By Robert S. Fontana, M.D., M.S.(Med.), Consultant, Section of Medicine, Mayo Clinic, Instructor in Medicine, Mayo Foundation Graduate School; and Jesse E. Edwards, M.D., Director of Laboratories, Charles T. Miller, Hospital, St. Paul, Minnesota, Clinical Professor of Pathology School of Medicine, University of Minnesota, formerly Consultant, Section of Pathologic Anatomy, Mayo Clinic. About 384 pages, 6″ x 9¼″. About $12.50.
New — Ready March!

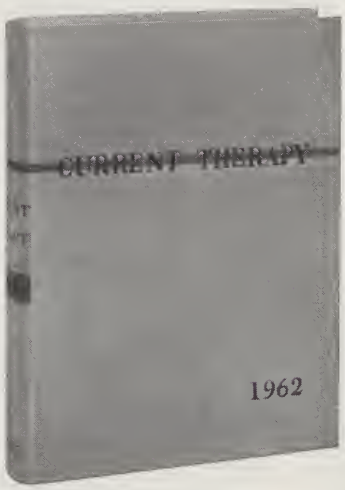
Williams — Textbook of Endocrinology

Stresses role of hormones in metabolism

New (3rd) Edition! Here is the most complete source of information available today on endocrinology and metabolism. It describes not only the various glandular disorders, but also the influence of the endocrines on various aspects of metabolism, inflammation, and cancer. So much new material has been added that this is virtually a new book. Completely new chapters cover: *Genetics and endocrinology—Disorders in sex differentiation—Hypoglycemia and hypoglycemosis—Hormones and cancer—Lipid metabolism and lipopathies—Effects of hormones on protein metabolism—Effects of hormones on water and electrolyte metabolism—The pineal.* Many new drugs are evaluated. Mechanisms of action, advantages and disadvantages are described.

By 21 American Authorities. Edited by Robert H. Williams, M.D., Executive Officer and Professor of Medicine, University of Washington Medical School. 1204 pages, 6½″ x 9¾″, with 333 illustrations and 103 tables. About $20.00.
New (3rd) Edition—Just Ready!

Today's Best Treatments



1962 Current Therapy

Here are the surest, most effective treatments known to medical science today for every disease you are likely to encounter. New and important changes in treatment for hundreds of diseases are detailed—diseases you may well be called on to treat within the year. Each is written specifically for *1962 Current Therapy* by an authority who is using it today.

This volume represents an extensive revision. Nearly 75% of the articles are changed in a significant manner. New or drastically revised subjects include: *Light Sensitivity and Sunburn—Pruritus Ani and Vulvae—Headache of Convulsive Equivalent Origin or Due to Intracranial Disease—Intrapartum and Postpartum Hemorrhage—Care of the Premature—External Cardiac Massage for Cardiac Arrest.*

Among the 233 completely rewritten articles are: Treatment of Staphylococcus Pneumonia —Treatment of Staphylococcus Endocarditis —Vinblastine in Therapy of Hodgkin's Disease—Current Use of Antibiotic Drugs in Treatment of Bacterial Infections (given throughout the book)—Live Virus Vaccine Poliomyelitis Prevention—Use of Tranquilizers and Antidepressive Drugs in the Psychoses.

By 307 American Authorities Selected by a Special Board of Consultants. Edited by Howard F. Conn, M.D. About 792 pages, 8½″ x 11″. About $12.50. *New—Just Ready!*

Order from W. B. SAUNDERS COMPANY West Washington Square Philadelphia 5

Please send me the following books and charge my account:
- ☐ Fontana & Edwards' Congenital Cardiac Disorders, about $12.50
- ☐ Williams' Textbook of Endocrinology, about $20.00
- ☐ 1962 Current Therapy, about $12.50

Name_____

Address _____

Saunders Books

SJG-2-62

CONSISTENTLY SUCCESSFUL IN RELIEVING DRY, ITCHY SKIN

Sardo® BATH OIL

STUDY 1 *Spoor, H. J.: N. Y. State J.M. 58:3292, 1958.*

satisfactory results in 88% of cases

comments: "In practically every instance... the patients experienced relief from dryness and pruritus."

STUDY 2 *Lubowe, I. I.: Western Med. 1:45, 1960.*

satisfactory results in 94% of cases

comments: Sardo "reduced inflammation, itching, irritation, and other discomfort..."

STUDY 3 *Weissberg, G.: Clin. Med. 7:1161, 1960.*

satisfactory results in 91% of cases

comments: "Scaling disappeared, and... the skin became softer and smoother..." with Sardo.

INDICATIONS

eczematoid dermatitis
atopic dermatitis
senile pruritus
contact dermatitis
nummular dermatitis
neurodermatitis
soap dermatitis
ichthyosis



SARDO IN THE BATH releases millions of microfine water-miscible globules* which act to (a) lubricate and soften skin, (b) replenish natural emollient oil, (c) prevent excessive evaporation of essential moisture.

Patients appreciate pleasant, convenient SARDO.
Non-sticky, non-sensitizing, economical. Bottles of 4, 8 and 16 oz.



for samples and literature, please write...

SARDEAU, INC. 75 East 55th Street, New York 22, N. Y. *Patent Pending, T.M. © 1961



Going home for the build-up

. . . AND PART OF THE BUILD-UP WILL BE SURBEX-T®

It's good to be going home—in more ways than one. Now, he can take food again, and Surbex-T has replaced parenterals. Each Filmtab combines therapeutic amounts of the B-complex with 500 mg. of C—the most concentrated dosage of ascorbic acid available in a product of this type.

Your patients get the potency of an injectable. Yet, dosage is in an easy-to-take oral form.

Thanks to Filmtab coatings, tablets are up to 30% smaller and *much* easier to swallow. Unpleasant vitamin odors and aftertastes are sealed inside the Filmtab. And, as no water is used in the Filmtab process, potency is assured for a longer time. 202075

ABBOTT

Each Filmtab® Surbex-T represents:

Thiamine Mononitrate (B_1)	15 mg.
Riboflavin (B_2)	10 mg.
Nicotinamide	100 mg.
Pyridoxine Hydrochloride	5 mg.
Cobalamin (Vitamin B_{12})	4 mcg.
Calcium Pantothenate (as calcium pantothenate racemic)	20 mg.
Ascorbic Acid (as sodium ascorbate)	500 mg.
Desiccated Liver, N. F.	75 mg.
Liver Fraction 2, N. F.	75 mg.

Supplied in bottles of 100, 500, and 1000

FILMTAB—FILM-SEALED TABLETS, ABBOTT

FILMTAB **SURBEX-T** Therapeutic dosage of the B-complex *plus 500 mg. of vitamin C*



...you can bet they're not from Abbott

Vitamin products generally taste fine going down, but regurgitative effects may often be downright unpleasant. While this seems like a minor problem, bad aftertaste can discourage patients from continuing needed medication ■ Filmtab coatings guard against this possibility. Vitamin repeat is brought to a minimum. Unpleasant odors and aftertastes are effectively sealed inside the Filmtab. Tablets are also *much* easier to take as they can be up to 30% smaller in size. Bulky sugar coating have been eliminated and breakage and cracking a less likely ■ As for stability—it's enhanced! No wat is used in Abbott's Filmtab coating process. Chanc of moisture degradation are virtually eliminated ■ Wh you recommend Abbott vitamins, Doctor, patients get the potency they pay for—today, tomorrow, a year from now.

ABBOTT

Filmtab® vitamins by Abbott: Dayalets® / Dayalets-M® / Optilets / Optilets-M® / Sur-Bex® with C / Surbex

FILMTAB – FILM-SEALED TABLETS, ABBOTT. 20

AMID LABORATORIES
INCORPORATED

THANK YOU!

From inception, six months ago, the management of AMID Laboratories, a subsidiary of Mississippi Industries, Inc., pledged that with your interest and encouragement AMID Laboratories would dedicate its efforts toward the development of a sound drug research and manufacturing program in Mississippi.

The splendid cooperation the medical profession has given AMID Laboratories indicates the recognition and need for drug research and manufacturing facilities in our state.

The personnel and full resources of AMID Laboratories are dedicated to the successful completion of this program and to the maintenance of the highest standards of quality in the manufacture and marketing of AMID products.

We thank you for your continued support.

BOARD OF DIRECTORS

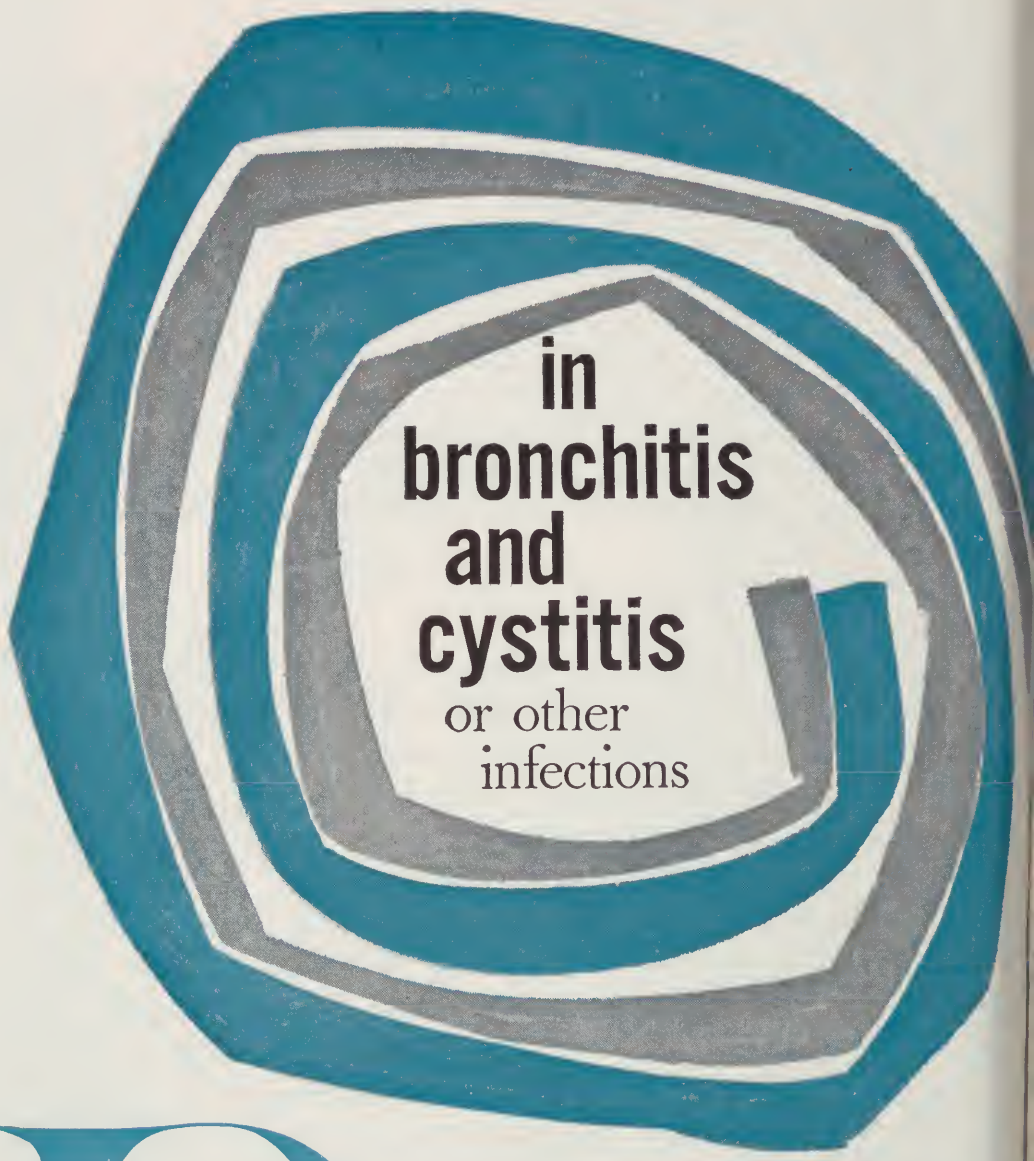
Charles A. Carter
George E. Cooper
O. B. Crocker, M.D.
John D. Dyer, M.D.
G. Swink Hicks, M.D.
James V. Russell, D.D.S.
Terrell E. Wise

Producers of Pharmaceuticals of Highest Standards of Quality

AMID LABORATORIES
INCORPORATED

490 E. WOODROW WILSON AVE. JACKSON, MISS.

A SUBSIDIARY OF MISSISSIPPI INDUSTRIES, INC.



DECLO

antibiotic therapy w

CAPSULES, 150 mg., 75 mg. *Dosage:* Average infections—150 mg. four times daily. Severe infections—Initial dose of 300 mg., then 150 mg. every six hours.

PEDIATRIC DROPS, 60 mg./cc. in 10 cc. bottle with calibrated, plastic dropper. *Dosage:* 1 to 2 drops (3 to 6 mg.) per pound body weight per day—divided into four doses.

SYRUP, 75 mg./5 cc. teaspoonful (cherry-flavored). *Dosage:* 3 to 6 mg. per pound body weight per day—divided into four doses.

PRECAUTIONS—As with other antibiotics, DECLOMY occasionally give rise to glossitis, stomatitis, proctiti diarrhea, vaginitis or dermatitis. A photodynamic re sunlight has been observed in a few patients on DEC Although reversible by discontinuing therapy, patien avoid exposure to intense sunlight. If adverse reactio syncrasy occurs, discontinue medication.

Overgrowth of nonsusceptible organisms is a possib DECLOMYCIN, as with other antibiotics, and demands patient be kept under constant observation.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New Yo

added measure of protection

MYCIN®

DEMETHYLCHLORTETRACYCLINE LEDERLE

gainst relapse—up to 6 days' activity on 4 days' dosage

gainst secondary infection—sustained high activity levels

gainst "problem" pathogens—positive broad-spectrum antibiosis

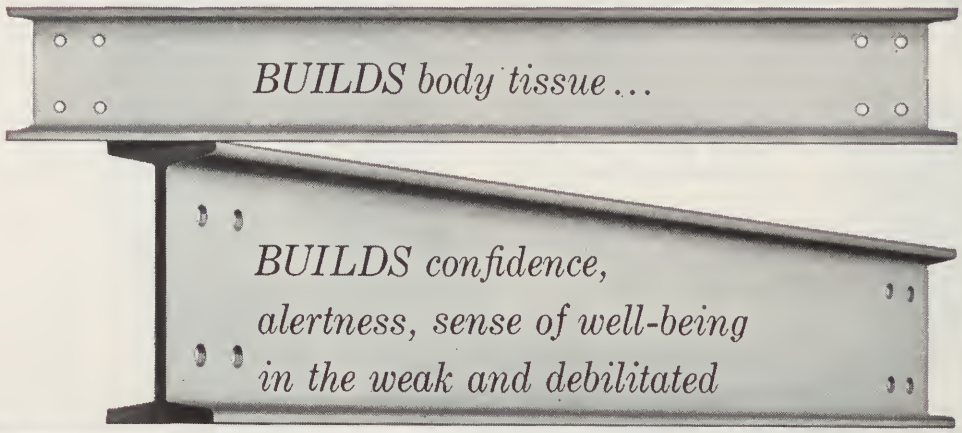
From Winthrop Laboratories–

A SIGNIFICANT NEW PHYSIOTONIC

to treat the TOTAL patient

WINSTROL

BRAND OF STANOZOLOL TRADEMARK



With *thirty* times the anabolic activity of methyltestosterone... and only *one-fourth* its undesirable androgenicity*—well tolerated WINSTROL therapy results in:

- Marked improvement in appetite
- Measurable weight gain
- Notable increase in vigor, strength and sense of well-being

for ...the tired, weak, irritable catabolic patient unable to overcome daily lethargy
...the elderly person with asthenia, inanition, anorexia or osteoporosis
...the patient with malignant, chronic or infectious disease
...the listless, undernourished child
...the adolescent with persistent underweight
...the patient on prolonged steroid therapy—to counteract catabolic effects

With WINSTROL, patients look better, feel stronger—because they are stronger.

Dosage: Usual adult dose, one 2 mg. tablet t.i.d. just before or with meals; children from 6 to 12 years, up to 1 tablet t.i.d.; children under 6 years, ½ tablet b.i.d. Available in bottles of 100 tablets.

*animal data

Complete bibliography and literature available on request. Before prescribing, consult literature for additional dosage information, possible side effects and contraindications.

Winthrop LABORATORIES
1450 Broadway • New York 18, N. Y.

1671M



Calms the Tense, Nervous Patient

in anxiety and depression

The outstanding effectiveness and safety with which Miltown calms tension and nervousness has been clinically authenticated by thousands of physicians during the past six years. This, undoubtedly, is one reason why meprobamate is still the most widely prescribed tranquilizer in the world.

Its response is predictable. It will not produce unpleasant surprises for either the patient or the physician. Small wonder that many physicians have awarded Miltown the status of a proven, dependable friend.

Miltown®
meprobamate (Wallace)

Usual dosage: One or two 400 mg. tablets t.i.d.
Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50. Also as MEPROTABS®—400 mg. *unmarked*, coated tablets; and in *sustained-release* capsules as MEPROSPAN®-400 and MEPROSPAN®-200 (containing respectively 400 mg. and 200 mg. meprobamate).

WALLACE LABORATORIES
Cranbury, N. J.

CM-5644

Clinically proven in over 750 published studies

1 Acts dependably — without causing ataxia or altering sexual function

2 Does not produce Parkinson-like symptoms, liver damage or agranulocytosis

3 Does not muddle the mind or affect normal behavior

"The first prescription I ever wrote was for 'Empirin' with Codeine...



ınd it is still my stand-by
'or pain relief today."

PICTURE THE YOUNG DOCTOR with his first private patient, about thirty-five years ago. This is the moment, after years of study and guidance in class-)om and at hospital bedside, when he assumes the full weight of responsibility)r the well-being of his patient. He makes his diagnosis. The patient is in con-derable pain, and his first concern is to relieve this discomfort. He writes a rescription for a new analgesic, a convenient drug combination that he believes ill be of help. This patient (and many others to follow) finds gratifying relief, nd the physician continues to rely upon this medication as the years go by.

'ould this have been you in the 1920's? That was when 'Empirin' Compound ith Codeine first came into general use (although plain 'Empirin' Compound as been well-known since the influenza epidemic of 1918). Satisfaction through ıe years has prompted doctors everywhere to depend on 'Empirin' with Codeine)r relief of most all degrees of pain. For with this well-tolerated, reliable anal-esic combination you can be sure of results, and feel secure in the fact that the ability of addiction is negligible.

lease accept our thanks for continuing to place your trust in a product that has een used more widely in medicine each year for the past four decades.

EMPIRIN' COMPOUND with CODEINE PHOSPHATE*

cetophenetidin, gr. 2½
cetylsalicylic Acid, gr. 3½
affeine, gr. ½

Remember there are now four strengths available...

**Warning—May be habit-forming. Subject to Federal Narcotic Regulations.*

No. 1 — gr. ⅛
No. 2 — gr. ¼
No. 3 — gr. ½
No. 4 — gr. 1

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N. Y.



VISION

A man must see ahead to the harvest to gain energy for today's labor of planting

In Blue Cross-Blue Shield, Mississippi doctors have a sure way to meet radical challenges to the voluntary financing of hospital and medical care—and to voluntary medicine itself. Only the foresight and energetic action of all doctors, coupled with the continued co-operation of hospital leaders, can expand the effectiveness of Blue Cross-Blue Shield here in Mississippi. The future of medicine and Blue Cross-Blue Shield may well rest upon the wisdom of your decisions and your willingness to act. Let the record show that Mississippi doctors stood fast to preserve our voluntary health care for future generations.

MISSISSIPPI

BLUE CROSS®
BLUE SHIELD®

MISSISSIPPI HOSPITAL & MEDICAL SERVICE / 530 E. WOODROW WILSON AVE. / JACKSON, MISS. / TELEPHONE EMerson



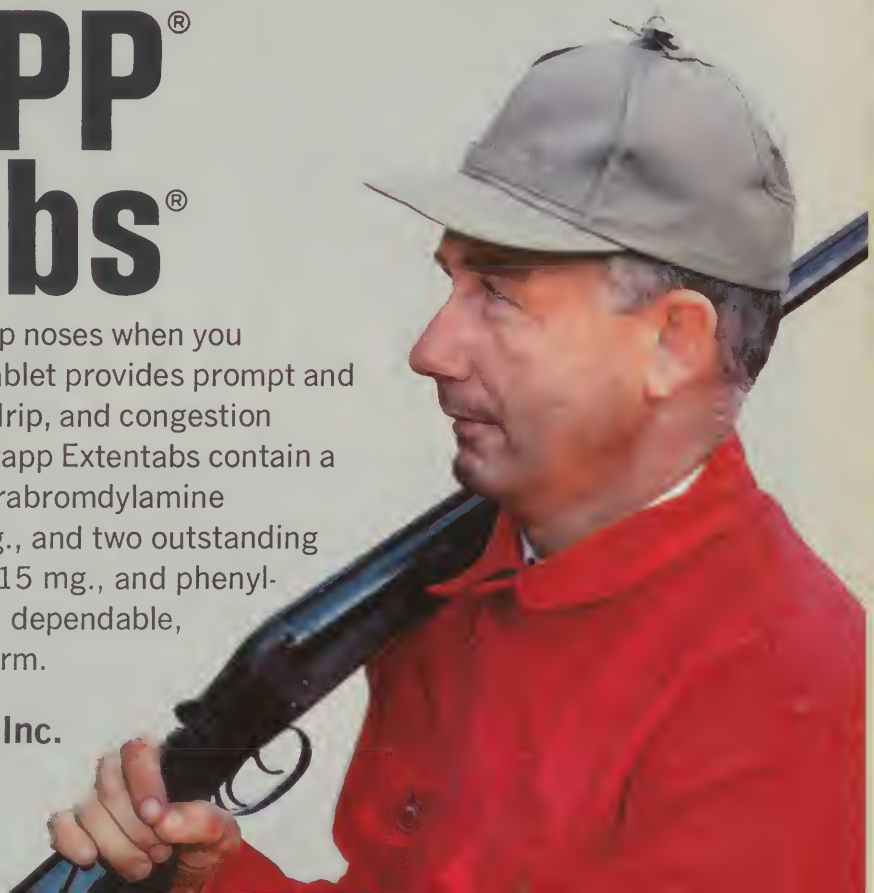
OPEN SEASON ON CLOGGED NOSES

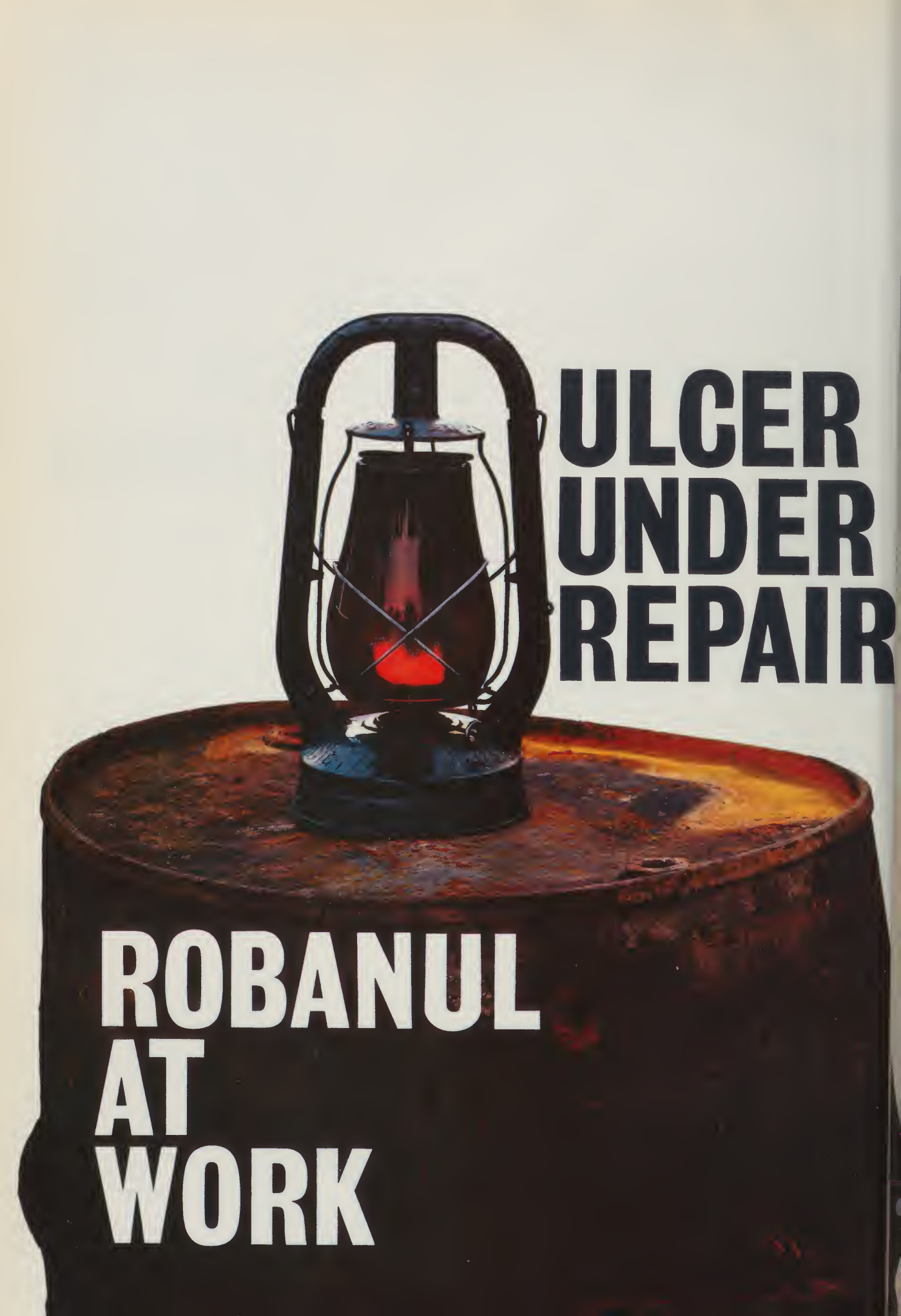
n sinusitis, colds, U.R.I.,
.0-12 hours
:lear breathing on 1 tablet

DIMETAPP®
Extentabs®

's always Open Season on stopped-up noses when you
rescribe Dimetapp Extentabs. One tablet provides prompt and
rolonged relief from the stuffiness, drip, and congestion
f upper respiratory infections. Dimetapp Extentabs contain a
roven antihistamine, Dimetane® [parabromdylamine
)rompheniramine) maleate]—12 mg., and two outstanding
econgestants, phenylephrine HCl—15 mg., and phenyl-
ropanolamine HCl—15 mg.... all in dependable,
)ng-acting (10-12 hours) Extentab form.

A. H. Robins Company, Inc.
Richmond, Va.




ULCER
UNDER
REPAIR
ROBANUL
AT
WORK

New

Robanul™ signals a major improvement in duodenal ulcer therapy

From Robins research comes Robanul (generically, Glycopyrrolate), first of the "rigid-ring" anticholinergics, representing what may well be the most important advance in anticholinergic chemistry in a decade.

Clinically, both Robanul and Robanul-PH (with phenobarbital) have demonstrated a remarkable ability to provide within 90 minutes—and maintain for 6 to 10 hours—those nearly ideal pharmacologic healing conditions that mean prompt relief of ulcer pain and a successful recovery of your ulcer patient.

There are always important questions about any new therapeutic agent. Below are answers to some of the common ones asked about Robanul:

ROBANUL™

Glycopyrrolate (Robins), 1.0 mg. per tablet (U.S. Pat. No. 2,956,062)

ROBANUL™-PH

Robanul with phenobarbital, 16.2 mg. per tablet

First of all, what does "rigid-ring" mean?

Briefly, this: it describes the use of a fixed pyrrolidine pentagon, or rigid ring, which guarantees a constant 2-carbon distance between reactive parts of the molecule. In line with the "receptor site" concept of the mechanism of action of anticholinergics, this almost inflexible molecule is theoretically more likely to "fit" only certain receptor sites.

Theories are all right, but is Robanul really more selective?

Yes! Evidence of its selectivity can be seen by the surprising lack of typical secondary anticholinergic effects (dry mouth, blurred vision, etc.) that occur at the effective dosage level of 1 to 4 mg. a day. Out of 499 duodenal and gastric ulcer patients treated at this level in investigative studies, only 4.4% had complaints of moderate to severe effects.

How is it for reducing gastric acid?

One investigator[1a] found that a 2 mg. dose of Robanul lowered acid secretion 73% in one hour (compared to a basal-hour period) and 84% in two. A 4 mg. dose dropped secretion over 94% in one hour and 97% in two!

What about acidity, or concentration of acid?

In one study, glycopyrrolate produced significant suppression of pH to 4.5 or higher in 5 of 5 duodenal ulcer patients given a 4 mg. dose, 7 of 8 patients given 2 mg., and 4 of 5 patients given 1 mg.[1b]

Will Robanul depress gastric hypermotility?

In another study[2] with six subjects Robanul decreased gastric motility in every patient. Within 40 minutes after the administration of 2 mg. of Robanul, the frequency of gastric antral contractions decreased from 1 every 24 seconds to only 1 every 2½ minutes. Young and Sun[1c] found a similar effect. Moreover, their results in 7 patients indicated that Robanul, in a dose of 2 mg., did not produce delay in gastric emptying or intestinal transit.

What's the best dosage schedule for Robanul?

It should be adjusted for each patient, and this is where Robanul offers another big advantage. Its "titratability" is unmatched among anticholinergic agents. Robanul's potency makes possible a recommended starting dose of only one milligram t.i.d. Yet its selectivity usually permits much leeway for dosage adjustment upward as necessary, to achieve the most effective dose level for each patient while maintaining a low incidence of undesirable effects on other organ systems.

Is there anything else Robanul does for peptic ulcer?

Much more! For instance, 2 mg. cuts pepsin production about 50% in two hours; 4 mg., about 65%.[1a]...There is evidence that Robanul combats hormonal aspects of gastric secretions as well as vagal in many patients... ...Its activity lasts long enough to reduce acid secretion all night long.[3]...Many ulcer patients have remarked about its fast relief of pain....

One last question: Why not prescribe Robanul for your next duodenal ulcer patient and see for yourself just exactly how effective it is?

References: 1. From the New York Academy of Sciences, Conference on Peptic Ulcer, Oct., 1961. (a) H. C. Moeller. (b) D. C. H. Sun. (c) R. Young and D. C. H. Sun. 2. W. C. Breidenbach: Investigative clinical report, March, 1961. 3. I. A. Feder: Investigative clinical report, May, 1961.

Additional information upon request.

A. H. Robins Company, Inc., Richmond 20, Va.

"If you're 65 or over, you can get fine Hospital-Surgical-Nursing Home Insurance

without any health exam!"

No matter how old you are—65, 75, 85, 95, 105 or more—you can obtain this fine Mutual of Omaha Senior Security plan!

SENIOR SECURITY is the plan you've been hearing about which provides fine hospital, surgical and nursing home benefits!

YOUR HEALTH DOESN'T MATTER! Yes, now you can get this coverage regardless of past or present health!

COVERS PRE-EXISTING CONDITIONS, TOO! Your Senior Security policy even covers pre-existing conditions that recur after six months!

SENIOR SECURITY RENEWAL GUARANTEE. Your Senior Security plan can never be canceled because of your age, health or number of benefits received. Even the premium cannot be changed or the policy canceled unless such action is taken on all Senior Security policies in your state!

ACT RIGHT NOW!

Mutual of Omaha provides health insurance for more than 1,200,000 persons 65 and over!

Enrollment begins February 1, ends March 15! Write or phone today for all the facts about cost and coverage of the "Senior Security" plan available in your state! No health exam, no age limit if you act fast!

Dignity and Independence



Mr. and Mrs. J. J. Anderson, Kansas City, Missouri, parents of Millie Considine, whose husband is famous author and reporter, Bob Considine.

"Senior Security means more than just good insurance to us—it offers us the opportunity of feeling independent and of keeping our own dignity by having a good way to help pay our hospital costs . . . and without being a burden to anyone!

"We're so glad we took advantage of that Senior Security enrollment when we first heard about it. It's so wonderful being protected by a big company everybody likes."

Mutual OF OMAHA
YOUR GOOD NEIGHBOR

MAXIMUM BENEFITS · MINIMUM COST ®

MUTUAL OF OMAHA
YOUR GOOD NEIGHBOR
MUTUAL BENEFIT HEALTH & ACCIDENT ASSOCIATION
HOME OFFICE
OMAHA, NEBRASKA

Vestal And Vernon

Mississippi General Agents

269 East Pearl Street
P.O. Box 1756
Jackson 5, Miss.

HOW CARTRAX® OFFERS BETTER PROTECTION AGAINST ANGINA PECTORIS THAN VASODILATORS ALONE:



TOGETHER—IN CARTRAX...

they decrease "length, severity, and amount of angina pectoris" in anxious cardiacs.[1]

Give your angina patient better protection by balancing supply and demand...with CARTRAX.

note: Should be given with caution in glaucoma.

dosage: Begin with 1 to 2 yellow CARTRAX "10" tablets (10 mg. PETN plus 10 mg. Atarax) 3 to 4 times daily. When indicated, this may be increased by switching to pink CARTRAX "20" tablets (20 mg. PETN plus 10 mg. Atarax). For convenience, write "CARTRAX 10" or "CARTRAX 20."
Supplied in bottles of 100. Prescription only.

1. Clark, T. E., and Jochem, G. G.: Angiology **11**:361 (Aug.) 1960.

*brand of hydroxyzine **pentaerythritol tetranitrate

Roerig

New York 17, N.Y.
Division, Chas. Pfizer & Co., Inc.
Science for the World's Well-Being®

The cigarette that made the Filter Famous!



It's true. Kent's enormous rise in popularity—with all the attendant magazine and newspaper stories—really put momentum to the trend toward filter cigarettes!

So, Kent is the cigarette that made the filter famous. And, no wonder. Kent's famous Micronite filter is made from a pure, all-vegetable material. A specially designed process at the P. Lorillard factory compresses this material into the filter shape and creates an intricate network of tiny channels which refine smoking flavor.

Kent with the Micronite filter refines away harsh flavor . . . refines away hot taste . . . makes the taste of a cigarette mild.

That's why you'll feel better about smoking with the taste of Kent.

© 1961 P. LORILLARD CO.

A PRODUCT OF P. LORILLARD COMPANY · FIRST WITH THE FINEST CIGARETTES · THROUGH LORILLARD RESEARCH

Organic Factor Found In Teenage Violence

An abnormal brain pattern has been found among a significant number of adolescents who commit murder and other acts of violence, according to Dr. Sherwyn M. Woods, Department of Psychiatry, University of Wisconsin Medical School, Madison, Wis.

While the exact role of this organic factor has not been determined, he said, the phenomena "is linked far more than by chance to the occurrence of aggression and violence by children and adolescents."

Writing in the December *Archives of General Psychiatry,* published by the American Medical Association, Dr. Woods said it was his belief that the brain abnormality "does not in itself induce violence."

Rather, he said, it represents a crucial, biological stress which enhances aggression resulting from the psychological makeup of the individual. He theorized that both the organic and the psychological factors would have to be present to result in violence and, therefore, the abnormal brain pattern could be associated with nonviolent behavior.

Dr. Woods also theorized that the organic abnormality might trigger the violent acting out of conflict as a form of release from tension in much the same way that the brain abnormality of epileptics triggers epileptic seizures.

The brain pattern which correlates with aggressive behavior in adolescents has been termed the "6 and 14 dysrhythmia" syndrome since the electroencephalograph of the brain waves shows distinctive peaks every 6th and 14th second, he explained.

The causes of the syndrome are not known, he said, but blows to the head, hereditary factors and encephalitis, inflammation of the brain, have been suggested.

Dr. Woods reported two cases of murders committed by 15-year-old boys who demonstrated the 6 and 14 syndrome. He said there had been at least ten other such murders reported previously and the syndrome had been associated with a wide variety of violent behavior.

He speculated that many more so-called murders without motivation by adolescents might be



with intermittent claudication
every block seemed a mile long

now...with **arlidin**

the blocks seem much shorter... he can walk many more of them in comfor

Arlidin is available in 6 mg. scored tablets, and 5 mg. per cc. parenteral solution. See PDR for packaging.
Protected by U.S. Patent Numbers: 2,661,372 and 2,661,373.

u. s. vitamin & pharmaceutical corporation
Arlington-Funk Laboratories, division • 800 Second Ave., New York 17, N.Y.

linked to the 6 and 14 syndrome if adequate electroencephalographic studies were made.

At present, Dr. Woods said, there is no known effective medication for treating this disorder and psychotherapy has not been investigated sufficiently to evaluate its benefit.

However, he said, the abnormality "tends to disappear with advancing age" and there is some evidence to suggest that the aggressive behavior associated with it may change with its disappearance.

The presence of the 6 and 14 syndrome also has legal implications, Dr. Woods pointed out. These patients, he said, "may well represent a pure-form example of a truly irresistible impulse."

Average Health Cost in U. S. Is $110 a Year per Person

People in the United States spend an average of $110 a year for their health needs. In 1960, according to data just made available, the nation's total personal health bill amounted to $19.6 billion.

While virtually every person had some medical or dental expense in 1960, there was as usual great variability of health costs among families, according to the Health Insurance Institute. A study several years ago showed one family in five spent under $50 annually for health care, one in six spent over $500, and one in 50 had medical expenses which exceeded $1,000 a year.

Hospital services accounted for the largest single part of 1960's personal health bill. One in every eight people—22,970,000 in all—were admitted to the nation's 5,400 general hospitals. They paid $2 billion directly to the hospitals, while insurance benefits picked up $3.4 billion, of the total hospital charges of $5.4 billion.

Direct payments for physicians' and surgeons' services of all types totaled $3.5 billion. Insurance benefits paid another $1.6 billion.

Drugs and medicines cost Americans $3.9 billion in 1960. Appliances, such as eye-glasses, hearing aids and wheelchairs, cost $1.2 billion.

Fees for dentists' services reached $2 billion. Over $2 billion was expended for all other items, including services such as those provided by private nurses and other medical and dental professionals, for health insurance operating expenses, and for nursing homes.



arlidin®

brand of nylidrin hydrochloride N.N.D.

increases local blood supply and oxygen where needed most . . . to relieve distressed "walking" muscles . . . for sustained, gratifying relief of pain, ache, spasm, intermittent claudication.

Indicated in:

arteriosclerosis obliterans
diabetic atheromatosis
ischemic ulcers
thrombophlebitis
thromboangiitis obliterans
night leg cramps
Raynaud's syndrome
cold feet, legs and hands

IMPORTANT: Before prescribing ARLIDIN the physician should be thoroughly familiar with general directions for its use including indications, dosage, precautions and contraindication. Write for complete detailed literature.

APPALACHIAN HALL

ESTABLISHED — 1916

ASHEVILLE NORTH CAROLINA



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.

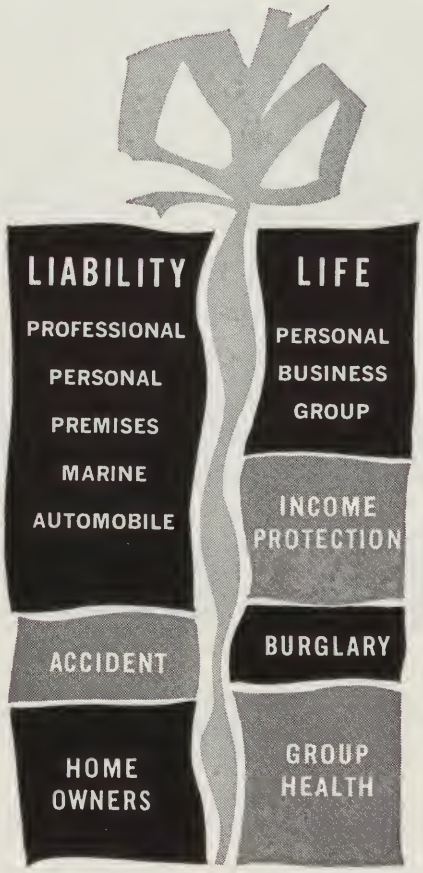
Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.

Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

WM. RAY GRIFFIN, JR., M.D.
ROBERT A. GRIFFIN, M.D.

MARK A. GRIFFIN, SR., M.D.
MARK A. GRIFFIN, JR., M.D.

For rates and further information, write: APPALACHIAN HALL, ASHEVILLE, N. C.



ST. PAUL MULTICOVER PLAN

SINGLE PACKAGE OFFERS THE PROFESSIONAL MAN THE MOST COMPLETE, MOST CONVENIENT COVERAGES EVER!

Choose from over 40 kinds of protection, pack those you need into a single St. Paul Multicover Plan. Deal with just one agent . . . pay just one premium. It's simple and safer, too.

Avoids overlapping coverages or loopholes between individual policies. Write for explanatory booklet.

THE ST. PAUL
INSURANCE COMPANIES



Serving you around the world... around the clock

St. Paul Fire & Marine Insurance Company
St. Paul Mercury Insurance Company
Western Life Insurance Company

Endorsed for Professional Liability by Mississippi State Medical Association

MISSISSIPPI OFFICE
P.O. Box 1412
1129 Deposit Guaranty Bank Bldg.
Jackson 5, Mississippi
FLeetwood 3-4961

HOME OFFICE
385 Washington Street
St. Paul 2, Minnesota

NEWSLETTER

MISSISSIPPI STATE MEDICAL ASSOCIATION
JACKSON, MISSISSIPPI

February 1962

Dear Doctor:

The state of Mississippi may acquire the old Jackson VA hospital property to use as a home for the aging. Move originates with Senator Quitman Lott, Purvis, who says that facility would relieve domiciliary care load on Whitfield and provide training center for physically handicapped. VA plans occupancy of new $14 million hospital this month.

> Old VA facility is "temporary construction" of WW II vintage, formerly Foster General Hospital. Chief argument for building new permanent VA plant near medical school was that old institution was too expensive to maintain. Located in west Jackson, old hodge podge of barracks buildings has 730,000 square feet of space.

Osteopath Albert L. Weiner of Erlton, N.J., was found guilty by criminal court on 12 of 15 counts of manslaughter in serum hepatitis deaths. Trial ran nine weeks and jury heard 178 witnesses. Prosecution charged patient deaths resulted from unsterile equipment and drugs. Weiner faces maximum sentence of 120 years and fines.

The Kefauver drug bill, if enacted, may impair nation's space and defense programs, so says Aerospace Industries Association. Testifying before a senate subcommittee, AIA representatives said proposal to lower drug makers' patent rights from 17 to three years would all but stop needed research. Commented Jackson Clarion-Ledger: "Surely, there must be another way for Estes to keep his name in the headlines!"

New York state will henceforth eliminate all reference to "color, race, ethnic origin, and results of tests for syphilis" from birth certificates. Governor Nelson Rockefeller and state health officer Herman Hilleboe say they're concerned that data might be used for discrimination against minority groups. Proscribed information will be recorded secretly in N. Y. vital statistics.

The doctor draft is calling up 345 physicians through February 18 but only those aged 27 and under are affected. All new calls are for Army since Air Force and Navy get sufficient volunteers. Total call for 1961 was 1,025 doctors.

Sincerely,

Rowland B. Kennedy
Executive Secretary

DATELINE - MEDICAL AMERICA

Natchez Paper Supports Chiropractic Licensure

Natchez - A major editorial in the January 12 Natchez Democrat declares a chiropractic licensure law will be submitted to the 1962 regular session of the legislature. The newspaper supports the law by saying that it would regulate and control the cultists' practice, "making certain that only qualified and trained men practice in the state." Despite concern for the state and its citizens, the newspaper is obviously under the delusion that licensure and legality can make a disproved, unscientific dogma good.

Human Elements Are Chief Factors In Farm Accidents

Chicago - AMA says that fatigue, hurry, and carelessness are chief causes of farm accidents. Study of 105 rural mishaps showed that machines were associated with half the injuries and four out of five occurred during routine farm work. Weather was no factor but time of day has a profound influence with 75 per cent of all accidents being after 3 p.m.

MCAT Scores Accurately Peg Med Students' Progress

Evanston, Illinois - The Association of American Medical Colleges has conclusive studies validating the Medical College Admission Test based on four year records of high and low scoring groups. Of 100 students who rated highest in 1956 on MCAT, more than half were in the upper third of their class and only one out of 20 failed to graduate. Of the low score students, only 13 per cent were in the upper third, one out of six was an academic failure, and nearly half were in the lower third of their class in the junior year.

Many States Hit With Professional Liability Premium Increases

New York - Physicians' premiums for professional liability insurance were changed in 21 states with 14 now paying greater amounts. Hardest hit was California, already highest in nation, with a 33 per cent increase. Doctors in Georgia, Michigan, Oklahoma, Tennessee, and Washington were also slammed in the wallet. Rate declined 20 per cent in Mississippi in sharp contrast to national trend.

ACR Warns Physicians On X-Ray Film Skin Game

Chicago - The American College of Radiology cautioned its Fellows to read the fine print in contracts for purchase of "flat, dry, used x-ray films." Experience shows some contracts offer attractive prices to doctors but qualify purchase prices subject to buyer's weights, inspection, processing, sorting, and analysis. One radiologist got $10 for used film worth an estimated $130. MSMA joins ACR in urging careful reading of all such purchasing solicitations.

Schering



when "flu" strikes

relieve U.R.I. distress rapidly

- relieve sneezing, runny nose
- ease aches and pains
- lift depressed feelings
- reduce fever, chills

For complete details, consult latest Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Bloomfield, N. J.

Rx CORIFORTE®

(Brand of Analgesic-Antihistaminic-Antipyretic Compound)

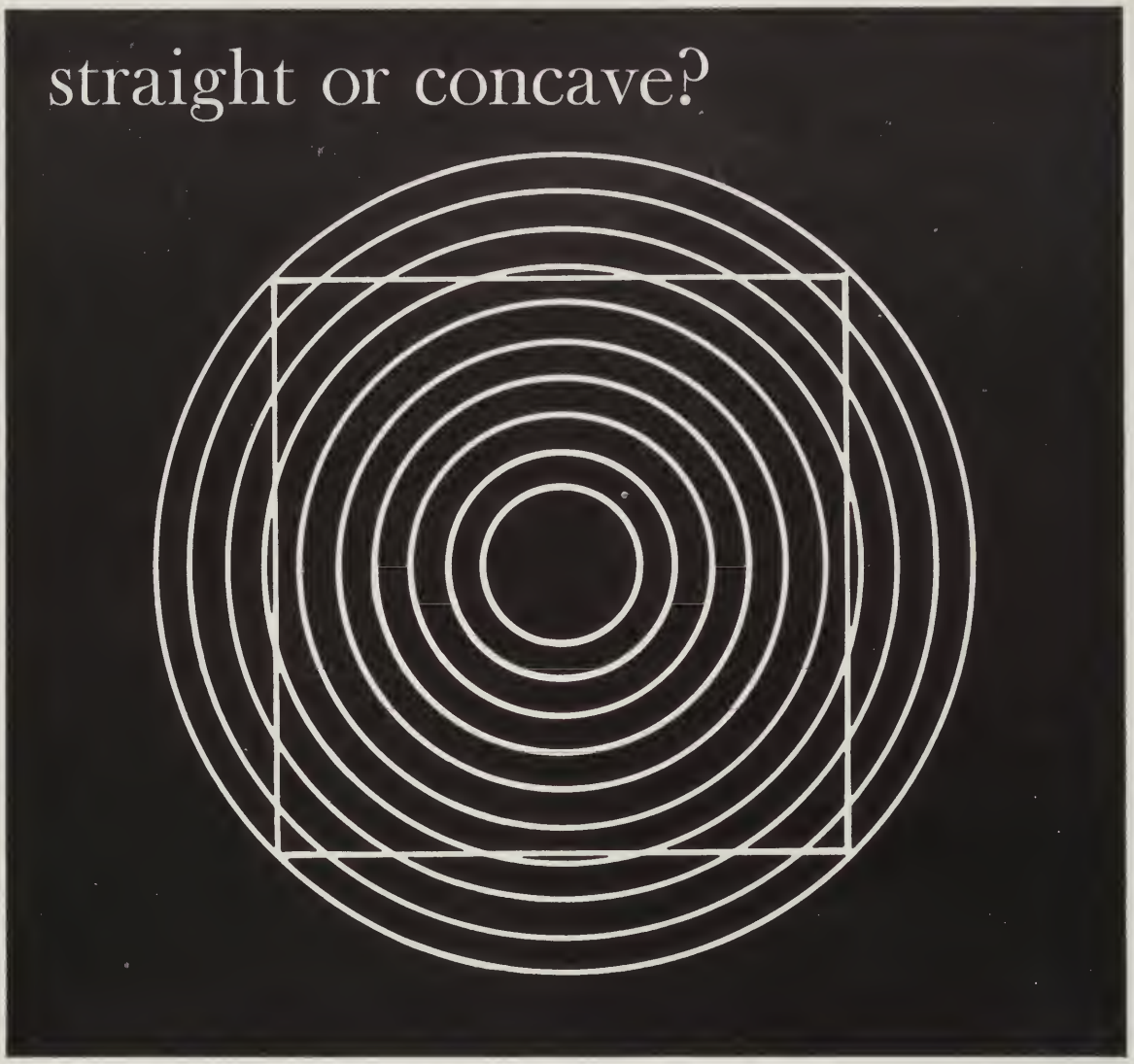
capsules

Each CORIFORTE Capsule contains:

CHLOR-TRIMETON® (brand of chlorpheniramine maleate)	4 mg.
salicylamide	0.19 Gm.
phenacetin	0.13 Gm.
caffeine	30 mg.
methamphetamine hydrochloride	1.25 mg.
ascorbic acid	50 mg.

available on prescription only

520



If the confusing array of concentric circles were removed, it would be easy to see that the sides of the square are perfectly straight.

Likewise, when claims of "price" and "blood level" advantages are viewed in proper perspective, it becomes clear that it's what a drug *does* that counts.

V-Cillin K® achieves two to five times the serum levels of antibacterial activity (ABA) produced by oral penicillin G.[1] Moreover, it is highly stable in gastric acid and, therefore, more completely absorbed *even in the presence of food.* Your patient gets more dependable therapy for his money . . . and it's therapy he really needs.

For consistently dependable clinical results
prescribe V-Cillin K in scored tablets of 125 and 250 mg. or V-Cillin K, Pediatric, in 40 and 80-cc.-size packages. Each 5-cc. teaspoonful contains 125 mg. crystalline potassium penicillin V.

Lilly

V-Cillin K® (penicillin V potassium, Lilly)
1. Griffith, R. S.: Antibiotic Med. & Clin. Therapy, 7:129, 1960.

233210

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana.

JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION
February, 1962, Vol. III, No. 2

ORIGINAL PAPERS

Local Anesthesia in Major and Minor Surgery

DONALD M. GLOVER, M.D.
Cleveland, Ohio

The author discusses the need for local anesthesia in major and minor surgery. He considers in detail the anesthetic agent, adjunct medication, techniques, and incisions, and specifically outlines procedures for surgery of the hand, face, breast, neck, and abdomen. A short portion of the paper is devoted to the psychological impact of local anesthesia on the patient.

THE AUTHOR HAS BEEN ASKED many times why he has so vigorously espoused the cause of local anesthesia in the face of dramatic advances in general anesthesia which have been witnessed by a generation of surgeons, i.e. development of the special field of anesthesiology, fruitful physiologic studies, and the introduction of new and better anesthetic agents. Many are persuaded that it is paradoxical and retrogressive to talk about so simple a matter as the application of local anesthetic agents.

Perhaps a retrospective glance at the development of anesthesia during the past four decades may show that local anesthesia still offers to the surgeon and the patient something distinctly worthwhile.

Most of the older surgeons among us were trained during an era when the then existent facts concerning general anesthesia were acquired along with the rudiments of surgery. During the earlier reaches of surgery, the embryo surgeon spent many hours with a gauze-covered mask in one hand and a can of ether in the other attempting to keep the patient alive but asleep and to avoid the bellows of the surgeon to "put her down." During this era, anesthesia for the elect private patients was provided by a few young surgeons, physicians, or dentists, who augmented their income in this manner.

Then came the nurse anesthetists and at about the same interval the early gas machines, probably more accurately termed "asphyxia machines." During the early years of nurse anesthetists, the surgeon who was trained under the drop ether schools still felt that he was closely identified with the procedure. Then, during and after the last

Read before the Section on Surgery, 93rd Annual Session, Mississippi State Medical Association, Biloxi, May 9-11, 1961.

World War, came the full flowering of professional anesthesiology which has made tremendous contributions to the safety of the patient and the convenience of the surgeon and has made possible entire areas of surgery that were never before practical. But along with these gains, the surgeon has lost much of his personal identification with the anesthesia and, in some instances, postoperative care also. In fact, many a young surgeon has learned to regard this as a way of life, especially if he was trained in a large hospital with a highly organized department of anesthesiology, to such an extent that when he goes to a community where such facilities are not available, he is lost. Perhaps we are losing something which is of value to the patient.

Along with the multiplicity of anesthetic agents, muscle relaxants, complex gas machines, mechanical ventilators and widespread employment of intubation, there are inherent hazards to the patient. Cardiac arrest continues to occur in the best regulated operating rooms.

MINIMAL TOXICITY

When the surgeon employs local anesthesia alone, and this is applicable to many operations, he has the entire procedure directly under his control, and minimal toxicity can be predicted. As an adjunct to general anesthesia, local anesthesia may make other more toxic muscle relaxants unnecessary, and it minimizes the amounts of more toxic anesthetic agents required to perform the operation. In other words, its employment makes poor general anesthesia better and good anesthesia safer. Furthermore, local anesthesia requires gentle and exacting technique, thorough knowledge of anatomy, and good rapport with the patient, all parts of an exacting discipline. It is our conviction that all young surgeons should learn these techniques.

Admittedly, there are some surgeons who, due to impatience, are not psychologically adjusted to the use of local anesthesia, and it is better if they do not attempt it. Patients frequently say that Novocain doesn't "work" for them, or that a doctor or dentist has told them they should never be given local anesthesia again because they get no effect from it and are probably "allergic" to the drug. Literally thousands of patients have been tested with procaine, and no one of them has shown a response that could be interpreted as due to sensitivity. Nevertheless, patients giving such a history should be tested out before operation is begun. One is forced to the conclusion that failures have been due to ineptitude on the part of the operator, and we all have failures.

THE ANESTHETIC AGENT

Many satisfactory local anesthetic agents are available but procaine is the least toxic of the lot, and thus the safest for general use. Some of the others are quicker acting and longer lasting and are quite safe when used in small quantities. It is considered wise for the young surgeon to use only procaine until he has developed technical facility, because it is almost impossible to get into trouble with it, using any reasonable caution. The 1 per cent solution is adequate, and it is a good rule to use no stronger solution under any condition. The one-fourth of 1 per cent solution is recommended for infants.

How much procaine can be used with safety? From 100 to 120 cc. are often given as a safe limit for one operation. The question is best answered in relation to time. With a patient possessing good cardiovascular function, procaine is rapidly metabolized and little of it remains in the area of operation after an hour, unless a vasoconstrictor is added to the anesthetic solution. A safe limit is probably 100 cc. per hour.

VASOCONSTRICTOR

The addition of a very small amount of epinephrine to the procaine solution greatly increases its proficiency by delaying its absorption. Epinephrine also reduces bleeding from the incision. Very small amounts of the vasoconstrictor are effective. For most operations upon adult patients, 0.10 to 0.15 cc. of standard solution of epinephrine to 30 cc. of procaine is effective. In very vascular fields about the face or oropharynx, a maximum of 0.5 cc. is employed. For young infants, 0.05 cc. is ample. There are some absolute contraindications to the use of vasoconstrictors, even in such very small amounts. For example, the older individual with arteriosclerosis, hypertensive cardiovascular disease at any age, peripheral vascular spasm from any source, hyperthyroidism, and pedicled flaps at any stage of preparation or transfer. Also when procaine is to be injected into the mesentery, the celiac plexus, or anywhere in the autonomic system, epinephrine should be omitted. There is another group of young individuals who might be called "stress hypertensives" who behave badly with epinephrine, developing high systolic pressures and often bleeding to a troublesome degree. About the only way these can be picked up is by

taking a very careful history and making repeated blood pressure determinations.

TOXIC EFFECTS

As with other anesthestic agents, toxicity is related to specific composition of the drug, dosage, and tolerance of the individual. Novocain is no exception. About one patient out of three will have a blood pressure drop with subjective nausca within ten to thirty minutes after injection. This is usually corrected quickly by tilting the table into moderate Trendelenburg position, administering oxygen, or both. This type of transient response is apparently due to rapid absorption of the procaine, and is somewhat less likely to occur with epinephrine in the solution. This phenomenon is seldom repeated during the course of the operation. An occasional patient will cxpericnce an hypotensive episode the instant that the injecting needle contacts the skin. This is almost certainly psychic in origin. It should also be noted that an occasional paticnt will become hypotensive following the administration of the preoperative medication consisting of barbiturate and narcotic. Most patients will have some nausea after a long operation with local anesthesia. This is usually over after a few hours.

ADJUNCTIVE MEDICATION

Preoperative medication with a barbiturate and a small dose of narcotic should be administered except for very brief procedures. There is some reason to believe that barbiturates lessen the toxic effect of procaine. During a long operation the patient frequently gets tired, edgy, and generally uncomfortable. A small dose of morphine (in the range of 0.008 for an average adult) will keep the patient comfortable for another hour. Another useful adjunct to local anesthesia is a slow drip of dilute (1 gm. to 1 l.) solution of Pentothal Sodium given intravenously during the operation. This tends to allay apprehension and makes a long procedure more tolerable. If given too rapidly (more than 60 drops per minute), a vasodilating effect will produce more bleeding in the operativc field. Given at the proper slow rate, a liter of the solution will last for several hours. If more than 0.5 gm. of the drug is administered, postoperative nausea will be somewhat increased. When the indications noted in this paragraph exist, it is advisable to administer the morphine intravenously.

TECHNIQUE

The first and essential part of the technical aspect of local anesthesia concerns the rapport which exists between the surgeon and the patient. The ability to maintain good rapport is acquired with experience and increasing confidence on the part of the surgeon who has learned to operate deliberately and gently and to recognize the involuntary muscle twitch that precedes recognition of pain by the patient. Small caliber, sharp needles are a great asset, especially for making the initial cutaneous injections. For this purpose a wire-thin No. 30 needle is ideal because it can scarcely be felt as it goes through the skin and also because it delivers a minimal but adequate amount of anesthetic agent. Especially when working with children, the combination of an adroit, sympathetic operator and fine needles is particularly effective. Children are ideal patients for local anesthesia, but if the surgeon makes one rough maneuver or painful injection, the ball game is over as far as that type of ancsthesia is concerned. Needless to say, it is of great assistance to have an anesthetist or nurse available to keep the youngster entertained with conversation and to focus his imagination upon things other than the operation.

INCISIONS

While incisions are not a part of any discussion of anesthesia, it goes without saying that an incision which is easily blocked with procaine is an advantage while working with this type of ancsthesia. Or, perhaps one might say that an incision that is a good one for local anesthesia is a good one for any type of anesthesia. It is inevitable that incisions which are favored by the author will find their way into the illustrations which follow. No originality is claimed for some that are not found in the textbooks. They are merely adaptations which have been found useful.

HAND SURGERY

Many surgeons consider that the use of local anesthesia in hand surgery is inadvisable. We have found this attitude to be unjustified. There are, however, certain limitations which should be specified. Local anesthcsia should be avoided in any vasospastic condition, such as Raynaud's Disease. Thosc surgeons who prefer to work with an upper arm tourniquet will have to employ either general anesthesia or brachial nerve block. We prefer not to use the tourniquet for most hand surgery, because it is usually unnecessary, but admit that is an item each surgeon must decide for himself. Brachial block is a useful type of anesthesia, but it is unreliable except in the hands of the exceptionally experienced anesthetist. With

it the complication of pneumothorax is fairly frequent, even in adept hands.

For many extensive hand operations we prefer the wrist block, illustrated in Figure 1. This is a simple procedure directly under control of the surgeon, applying quite reliable anatomic relationships. The median and ulnar nerves are injected on the palmar surface of the wrist, using the tendons of the palmaris longus and the flexor carpi ulnaris as guides, and the dorsal interosseous branch of the radial is injected on the dorsum. As in other forms of nerve block, about 15 minutes may be required to obtain complete anesthesia, and to save time we often inject the lines of incision also. The nerve block will last for from forty-five minutes to two hours, depending upon whether or not epinephrine has been added to the procaine. This form of anesthesia is useful for repair of soft tissue lacerations, including tendons, and drainage of abscesses. Where the tendons need to be exposed at the wrist, the median and ulnar nerves may be injected at an appropriate level by direct vision.

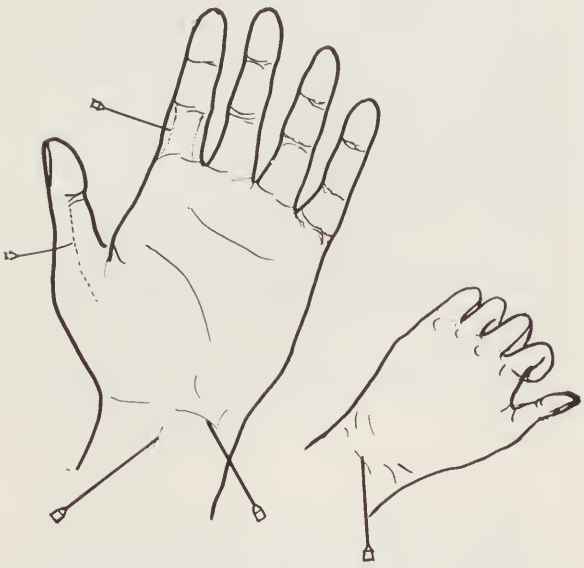


Figure 1. Local Anesthesia in Hand Surgery. The digital nerve block commonly employed for finger surgery is demonstrated on the upper diagram, points of injection being shown on the lateral aspects of the thumb and index finger. Near the base of the finger, the digital nerve lies just anterior to the mid-sagittal plane of the proximal phalanx. For complete anesthesia both digital nerves should be injected, and for prolonged anesthesia a rubber band tourniquet should be placed proximal to the points of injection. The usual technique includes making cutaneous wheals on medial and lateral surfaces of the finger, then directing the point of the needle directly toward the midpoint of the phalanx. After the point impinges on the bone, it is withdrawn a few millimeters and tilted a few degrees anteriorly. Here 2 or 3 cc. of Novocain are deposited in and about the digital nerve. It takes five or ten minutes to obtain complete anesthesia.

For complete hand anesthesia, wrist block is useful. It is obtained by injecting the median and ulnar nerves directly on the palmar surface of the wrist and the dorsal interosseous nerve on the dorsum, as shown in the diagrams. At the points shown, the median nerve lies directly beneath the palmaris longus tendon and the ulnar lies beneath the lateral margin of the flexor carpi ulnaris tendon. The dorsal interosseous branch of the radial becomes superficial at the wrist about midway between the radius and ulna. This type of block becomes complete in about 15 to 20 minutes.

The commonly used digital nerve block for finger surgery is also illustrated in Figure 1. In this connection, it should be noted that a rubber band tourniquet placed at the base of the finger increases the duration of anesthesia. If this is used, however, one should be certain that the band is removed before the dressing is applied. It is easy to lose the rubber band in a dressing, with resulting loss of a finger tip, if this precaution is not observed.

FACIAL WOUNDS

The care of lacerated wounds of the face comprises an important segment of emergency procedures, as practiced in hospital emergency departments or doctors' offices. Too much emphasis cannot be placed on the fact that proper care of these wounds at the outset will determine the ultimate appearance of the face. No amount of later plastic surgery can compensate for a careless initial repair. Many of these occur in childhood, and the unfortunate tendency is to react to a stressful situation by putting in a few sutures without anesthesia and hoping for the best, at the same time informing the parents that if the scar isn't satisfactory it can be corrected by plastic surgery. The adroit use of procaine with a minimal amount of epinephrine will make it possible to do a simple but careful debridement and layer closure which will ensure a good primary result and obviate the necessity for later surgery.

HERNIA REPAIR

Inguinal hernia repair is the operation most frequently assigned to the surgical resident in the early stages of his training. It happens also to be an ideal procedure for learning the technique of local anesthesia. With local, the operator may take as long as necessary to perform the surgical repair, without hazard to the patient. With facility

gained in the performance of this operation, the young surgeon may then apply the technique with confidence in other and more difficult operations. The use of local anesthesia, furthermore, offers an important dividend to the teaching service by minimizing the incidence of postoperative complications. Patients of the older age group are likely to dominate the picture on most metropolitan charity services, and in this group particularly the incidence of pulmonary complications is unjustifiably high when general anesthesia is employed.

The technique illustrated in Figure 2 emphasizes the following points: (1) Initially, only the skin and subcutaneous tissue should be infiltrated; (2) The incision should be made down to the external oblique aponeurosis with deliberation and care to avoid the small branches of the ilio-inguinal and iliohypogastric nerves which perforate the aponeurosis; (3) After the aponeurosis, which contains no nerve ends, is divided in the direction of its fibers, the ilio-inguinal nerve should be injected proximal to its division into two branches; (4) The spermatic cord should be elevated gently in order to visualize and inject the vas deferens directly since the adventitia of the vas carries all the pain fibers to the cord and testis; (5) The hernia sac should be carefully dissected in such a manner as not to put traction on the neck of the sac until it has been injected directly with procaine. With this amount of anesthesia, the sac can then be secured and resected and the musculofascial repair performed.

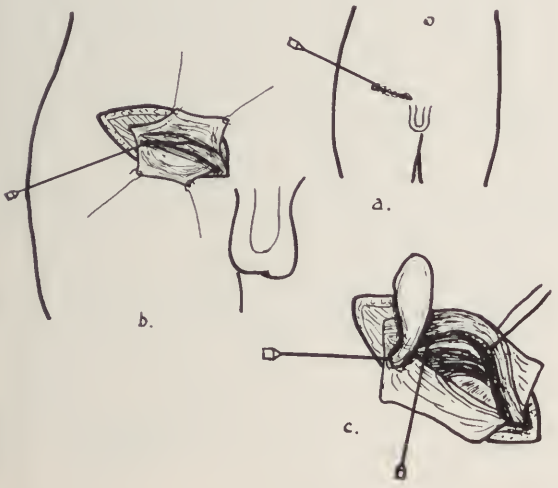


Figure 2. Local Anesthesia in Inguinal Hernia Repair. a. Infiltration of the skin and subcutaneous tissue in the line of incision is carried out, using care to block the small fibers of the branches of the ilio-inguinal and iliohypogastric nerves as they perforate the aponeurosis of the external oblique. The incision through the fat must be made deliberately and gently to be sure these fibers are injected before they are cut.

b. When the aponeurosis of the external oblique is divided, the ilio-inguinal nerve is easily visualized lying on the surface of the cremaster muscle which envelopes the spermatic cord. The nerve is injected proximal to its division into two branches, as shown in the diagram.

c. The spermatic cord is then lifted gently from the floor of the inguinal canal, so as to expose the vas deferens with its lace-like vascular pattern. The adventitia of the vas is then injected directly as near the internal ring as possible. This produces complete anesthesia of the cord and testis. The peritoneal sac is then dissected gently avoiding traction on the neck of the sac until it is injected directly. This combination produces all the anesthesia necessary to resect the sac, and its contents, and to complete the musculo-fascial repair.

If the sac contains omentum, this can be dissected free and returned to the peritoneal cavity without pain. If it is necessary to retract the neck of the sac to inspect the abdominal contents, injection of the adjacent internal oblique and transversalis muscles through the peritoneum will provide the necessary relaxation. If the sac contains a loop of intestine or the appendix, these viscera may be handled without pain, since there are no pain fibers in the visceral wall. If, however, traction is made upon the mesentery, the patient will complain of pain "in the pit of the stomach." Injection of the mesentery or meso-appendix directly stops the pain almost instantly, and the appendix may be removed or the bowel resected without further anesthesia, provided that they are handled gently.

BREAST OPERATIONS

Some surgeons contend that to perform a breast operation on a woman with local anesthesia is too traumatic psychologically to be tolerated by the patient. This view we believe to be a figment of the surgeon's imagination, and that the psychological trauma is probably greater to the surgeon that the patient. As a matter of fact, breast biopsy or removal of benign tumors are ideally performed with local anesthesia. Furthermore, if the tumor proves to be malignant and the radical operation is to be performed under general anesthesia as soon as the frozen section is completed, the patient is saved from 30 to 50 minutes of general anesthesia by having the biopsy performed with local anesthesia. We believe it to be better psychologically and safer legally to be able to explain to the patient before she is put to sleep why the mastectomy is necessary, rather than to have her discover what has been done during the period of postanesthetic confusion.

The diagrams in Figure 3 illustrate the method of blocking with procaine the periareolar incision which we prefer for breast biopsy or resection of benign tumors. When healed, this incision leaves no visible or palpable deformity of the breast. The same method is employed in subareolar mastectomy for gynecomastia in the young male.

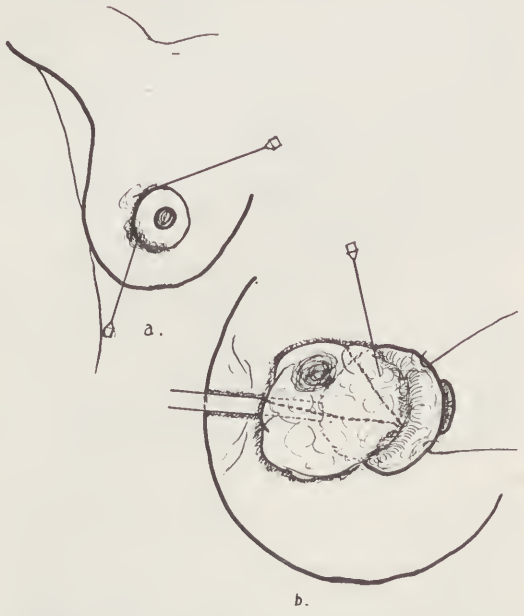


Figure 3. Local Anesthesia for Breast Operations. a. The margin of the areola should be infiltrated with procaine. The periareolar incision is ideal for breast biopsy or resection of benign breast tumors.

b. After injecting procaine subcutaneously about the lateral half of the breast, the skin and the areola are retracted and the appropriate quadrant of the breast is delivered so that the tumor in question may be examined and resected (along the dotted lines). It is usually necessary to inject some procaine directly into the breast tissue, especially in the area about the duct system.

While we do not advocate it as a general principle, the entire radical mastectomy can be performed on the poor risk patient under local anesthesia by injecting the lines of incision and blocking the appropriate intercostals posteriorly and parasternally. A transverse "bra line" incision is recommended.

CERVICAL OPERATIONS

Because of the relative ease with which the sensory nerves may be blocked, operations upon the neck are ideal for local anesthesia, either alone or with a slow drip of dilute Pentothal Sodium. Common operations which fall within this category are: thyroidectomy, cervical lymph node dissections, thyroglossal and branchial cystectomies, and extensive skin grafts.

The techniques employed in thyroidectomy and radical neck dissection are shown in Figures 4 and 5. Most thyroidectomies can be done in this manner without an intratracheal tube which is required for an adequate airway with general anesthesia. The disadvantages of the tube are (1) the inevitable, occasional injury to a vocal chord, (2) secondary edema, and (3) the fact that recurrent laryngeal nerve injury cannot be recognized until the tube is removed, usually in the recovery room. It is a great comfort to the surgeon, especially when performing a total thyroidectomy for carcinoma, to be able to talk with the patient while dissecting out the recurrent nerve, and to know that with the slightest pinch of the nerve the patient will cough or complain. If part of the thyroid is retrosternal or behind the trachea, it may be advisable to have the anesthetist give the patient nitrous oxide and oxygen for 15 or 20 minutes during delivery of the difficult part of the gland or rotation of the trachea. The morbidity among patients so treated is considerably less than when general anesthesia is given throughout the procedure.

Many of the patients requiring radical neck dissection are in the older age group and have pulmonary emphysema and cardiovascular disease. In this group the morbidity and perhaps the mortality can be reduced by the judicious use of local anesthesia alone or in conjunction with light general anesthesia.

ABDOMINAL SURGERY

This brings us to a consideration of the place of local anesthesia in abdominal surgery. Here it is probably best employed as an adjunct to general anesthesia. The chief contributions of local anesthesia in abdominal surgery are: (1) reducing the volume of toxic agents required to keep the patient free from pain, (2) reducing the necessity for muscle relaxants (of whose safety we are not yet completely assured), (3) reducing the number of potentially dangerous complications, (4) reducing postoperative morbidity, and (5) *possibly* reducing postoperative mortality (reliable statistics are not available on this aspect).

The operation we have chosen to illustrate is cholecystectomy (Figure 6). The operative incision is started with local procaine while the patient is put to sleep slowly and quietly by the anesthesiologist. The peritoneum and overlying muscles are blocked with procaine, which takes the place of deep anesthesia and muscle relaxants. Infiltration of the celiac plexus in the porta hepatis makes it possible to manipulate the duct

system without deep anesthesia and without producing hypotension. Abdominal closure is completed mostly with local anesthesia, so that the patient ideally is practically awake by the time the last sutures are in place. It should be unnecessary to state that this requires complete coordination of the efforts of surgeon and anesthesiologist. It does not always work; but when it does, which is a good share of the time, it is a most rewarding consummation of the arts of surgery and anesthesiology.

Other representative abdominal operations may be performed applying similar principles with special adaptations which occur to the surgeon. To be sure, any abdominal operation can be performed entirely with local anesthesia when indicated by the precarious situation of the patient, but it is hard work for the surgeon, and requires great confidence and tolerance upon the part of the patient. The author recalls with some satisfaction a frail little lady of 88 summers, desperately in need of a gastrectomy, who finally agreed to have the operation performed if she "would not be put to sleep" and if the operation would be finished in time for her to listen to the ball game over the radio. Fortunately we made it.

In another instance, a woman of 93 with left colon carcinoma presented physical complications which made any choice but local anesthesia intolerable. When we started the operation, she said, "Now see here, young man, you said this wouldn't hurt and I'm going to hold you to it." The patient was gracious enough to say that it hardly hurt any, and proceeded to live on and die of complications following a traumatic hip fracture at age 98.

At the other end of the age range, abdominal operations with local anesthesia are often actually lifesaving. Most of the operations for congenital anomalies of the gastrointestinal tract in the newborn are best done entirely with procaine (one-fourth of one per cent with one drop of epinephrine per 30 cc.). These babies tolerate operative trauma and inhalation anesthesia very poorly, and if they are to survive, they should have very little of either. In fact, most urgent abdominal operations required in early infancy are best done with local anesthesia.

Other general surgical procedures for which local anesthesia is particularly useful are resections of the lip, tongue, mandible or parotid, and skin grafts in any area of the body. We have found it particularly helpful to be able to perform multiple stage operations on children, such as ear reconstructions or multiple grafts, with local anesthesia because the child's only fear of going

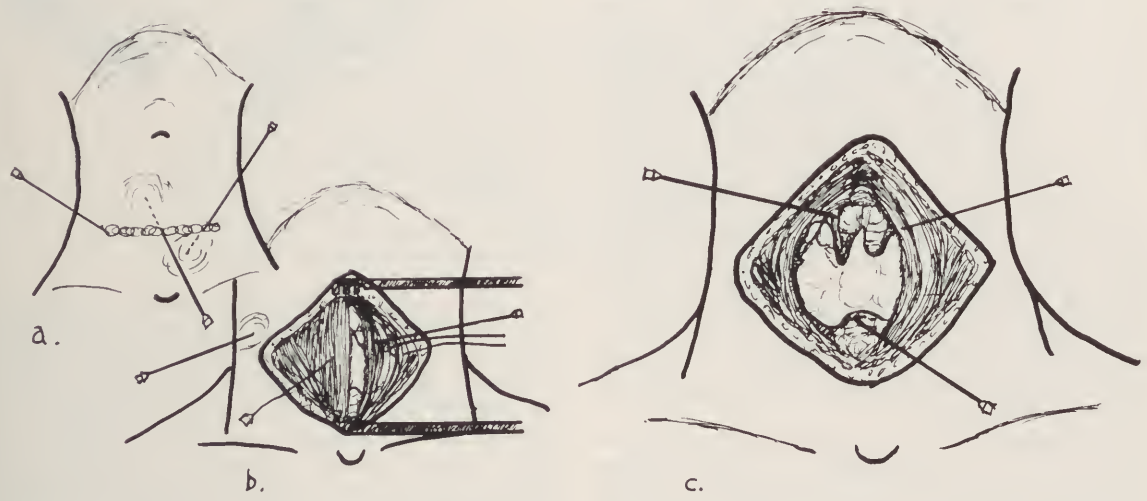


Figure 4. Local Anesthesia for Thyroidectomy. a. The line of incision, about 3 cm. above the sternal notch, should be infiltrated with procaine as illustrated. Also shown are long No. 25 needles injecting procaine into the platysma proximally and distally to the line of incision to permit wide retraction.

b. After the self-retaining retractor is in place, the sternomastoid, sternohyoid and sternothyroid muscles are injected as shown, as the muscles are separated in the midline to expose the thyroid capsule. Then the main trunk of the cervical nerve is injected on each side where it curves about the midpoint of the sternomastoid muscle.

c. After the pretracheal muscles have been retracted, the superior laryngeal nerve is injected on each side where it lies between the lateral surface of the thyroid cartilage and the superior pole of the thyroid gland; the capsule of the gland is injected laterally, and the pretracheal fascia is injected below and above the isthmus. As the lateral lobes are rotated forward, more procaine is injected in the exposed capsule.

to the hospital again is associated with the prospect of a general anesthetic. Most youngsters of eight or nine and some younger take local anesthesia well. Once convinced that they can be operated on without ether, these young patients no longer object to going in for additional procedures.

The psychological impact of local anesthesia on the patient has been intriguing. Some patients have become prejudiced against local anesthesia by a previous unpleasant experience. Others are terrified at the thought of remaining conscious during any operation; these are often dependent individuals who are emotionally insecure and to whom unconsciousness seems to be a kind of shelter. With such patients, we never insist upon local anesthesia, but the procedure is explained carefully, and the patient is assured that an anesthetist will be with him and he may be put to sleep within a matter of seconds at any time he wishes it. As a matter of record, under such conditions few patients have availed themselves of the opportunity to be put to sleep. On the contrary, the patients who have been most vehement about not being able to tolerate consciousness during an operation are the most voluble in praise of the procedure before the operation is over. It seems possible that participating consciously in an operation he had feared and could not face is psychologically beneficial to the insecure indi-

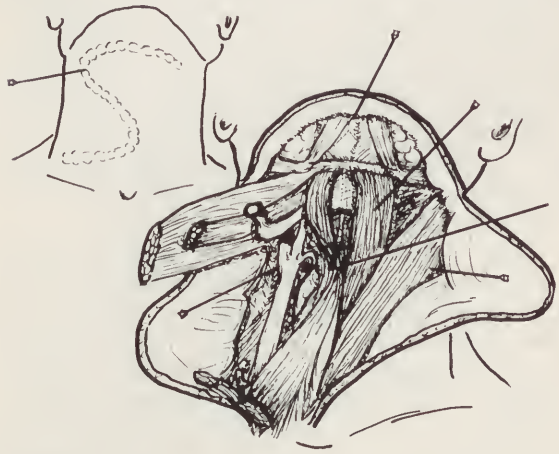


Figure 5. Local Anesthesia for Neck Dissection. The outline diagram at the upper left shows injection of the outlined incision. The S-type incision is one preferred by the author, because all three limbs of the incision are generally transverse in direction. When closed carefully, this incision leaves a minimal scar. The platysma is injected beneath the entire area of the incision and the cervical nerve is injected as shown in Figure 4.

The flaps are then elevated, as shown in the larger diagram, and the pretracheal muscles are injected on the affected side. The sternomastoid and omohyoid muscles are divided, and the carotid sheath is injected. The internal jugular vein is divided, along with the adjacent lymphatics, lymph nodes and fat, and retracted as shown in the diagram. The pretracheal muscles are retracted medially exposing the common carotid artery.

The dissection is then carried upward along the carotid bulb and its branches. A little procaine is injected into the adventitia of the bulb in order to prevent carotid sinus reflex disturbances. As the dissection is carried farther forward, additional injections must be made into the thyrohyoid membrane, the digastric and mylohyoid muscles, the capsule of the submaxillary gland, and into the periosteum of the mandible and the hyoid. This usually produces anesthesia which is adequate for completion of the operation. With long operations of this type, a slow drip of dilute Pentothal Sodium intravenously is helpful.

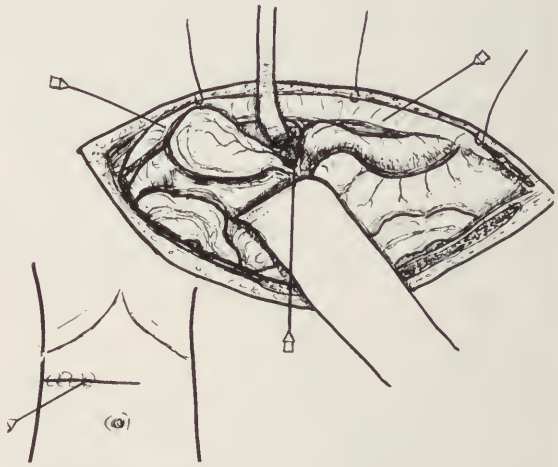


Figure 6. Local Anesthesia in Abdominal Surgery: Cholecystectomy. The small inset at the lower left shows the outlining of the transverse incision with procaine. After the incision is made, the abdominal muscles are injected directly and divided. As soon as the peritoneum is incised, the margins are gently turned outward, as shown in the large diagram, and procaine is injected into the properitoneal fascia and the adjacent muscles. The injection should be carried far enough back from the peritoneal margin to make retraction possible. In order to dissect about the duct system without undue stimulation and hypotension, it is necessary to inject about the common duct and the fibers of the celiac plexus in the subperitoneal areolar tissue of the porta hepatis. This type of local anesthesia may be used either alone or in conjunction with light general anesthesia.

vidual to the extent that it re-enforces his ego and establishes some degree of self-confidence.

SUMMARY

Some of the philosophical aspects of local anesthesia have been discussed and several illustrative techniques have been described. Its employment seems to bestow certain benefits upon the patient and satisfactions to the surgeon. It is recommended as a discipline which should be an integral part of surgical training.[1] ★★★

10525 Carnegie Avenue

REFERENCE

1. Glover, D. M.: Local Anesthesia and Surgical Training, A.M.A. Arch. Surg. 77:356-368, 1958.

RSVP *vs.* DBTA

A small group of crusaders, led by a prominent New York attorney, is trying to get the government and private business to save what they think will be a good-sized chunk of money by adopting a simple technique. Under the attorney's signature in a letter to his bankers recently were the letters DBTA. Asked what this meant, he explained that it was the reverse of RSVP— or "Don't Bother To Answer." In trying to get the bureaucrats to adopt this technique, the lawyer argues it will save bushels of money in paper, postage, and typing time otherwise spent on routine replies.

On Perinatal Mortality Conferences

DAVID G. WATSON, M.D., and LOIS M. MOSEY, M.D.
Jackson, Mississippi

Beginning in December 1959 the University of Mississippi Medical Center has held regular monthly Perinatal Mortality Conferences. The chief objectives of the program were to provide a monthly record of pertinent perinatal statistics from the obstetric and pediatric services of the University Hospital, to provide a forum for the presentation of the statistics and for discussion of the problems presented by certain cases. Since Jan. 1, 1961, the University Medical Center has been one of 95 hospitals included in the Perinatal Study Program of the American Medical Research Foundation. This summary of the achievements of the University's program was written by representatives of the Departments of Pediatrics and Obstetrics and Gynecology.

THE PURPOSES OF Perinatal Mortality Studies were discussed in a previous issue of JOURNAL MSMA.[1] It was pointed out that nearly two-thirds of current infant mortality occurs in the first week of life.

In December 1959, it was decided to set up a regular Perinatal Mortality Conference at the University of Mississippi Medical Center. The chief objectives were to provide a monthly record of pertinent perinatal statistics from the obstetric and pediatric services of the University Hospital, to provide a forum for the presentation of the statistics and for discussion of the problems presented by certain cases. This was done in the hope that this self-evaluation would lead to an improvement in the perinatal mortality and morbidity in the institution and further the education of house staff and medical students. The authors of this article, representing their respective departments, organized this conference in January 1960. For guidance, we referred to *A Guide for the Study of Perinatal Mortality and Morbidity*,[2] with special reference to section one and two on terms, definitions, and rates, and to a Hospital Perinatal Mortality and Morbidity Study Committee.

CONFERENCE PROCEDURE

The conferences were held at 5 p.m. on the third Tuesday of each month. This allowed members of the staffs of the obstetric, pediatric, and pathology services to attend. At the end of the first year it became apparent that representation by the Department of Anesthesiology would be desirable and this is projected in the future. This time also allowed for the compilation of statistics and the composition of protocols for the fatal and some of the morbid cases. The procedure adopted was for the pediatric resident physician to review the nursery records and list the total nursery admissions, subdivided into full-term infants and premature infants in each of the five weight categories (0-500 gm., 501-1000 gm., 1001-1500 gm., 1501-2000 gm., and 2001-2500 gm.). A prematurity rate in per cent was given.

The charts of those infants who had died and had significant morbidity in the first 28 days of life were then examined. Only those infants born in the University Hospital were included. At the same time, the obstetric resident reviewed the charts of the mothers of stillborns and of the neonatal deaths and morbidities. The pathology department was notified of those cases of perinatal loss for whom autopsies had been performed. From these charts, brief protocols were made summarizing the pertinent points of the maternal and fetal course. The foregoing information was typed and mimeographed. Infants who had had exchange transfusions were included in the morbidity figures and data from the infants' and mothers' charts were tabulated. Early in this study it became ob-

From the Departments of Pediatrics, Obstetrics, and Gynecology, University of Mississippi School of Medicine.

vious that these written summaries available for all in attendance at the conference were most helpful in the discussion of cases.

At the conference, the mimeographed forms were distributed, the statistics were presented, and two or three cases, which had previously been selected by the committee chairmen, were discussed. All charts were available, and anyone present could initiate discussion of any of the other cases. The discussion was aimed at appraising obstetric and pediatric management as if ideal circumstances existed to determine if the mortality or morbidity were in anyway preventable. If the mortality or morbidity were deemed preventable, it was attempted to assign the prime responsibility to the patient (mother), physician (obstetric, pediatric, or anesthetic), or the hospital. Cases not selected specifically for discussion were evaluated in terms of the above criteria by the committee chairmen.

STATISTICAL DATA

At the end of the year the statistics were reviewed and compiled in tables similar to those suggested by the American Academy of Pediatrics[3] (see Tables 1, 2, and 3).

A large number of obstetric admissions at the University Medical Center are patients referred because of obstetric difficulty. The number of prenatal visits by even our own clinic patients is low. Thus, this hospital does not have an average obstetric or nursery population. Despite this, the above statistics compare favorably with the national average.

TABLE I

NEONATAL DEATHS AND MORTALITY RATE OF INFANTS BORN IN UMC IN 1960

Birth Weight	*Live Born Infants*	*Neonatal Deaths of Liveborn Infants*			*Neonatal Mortality Rate in Hospital*
		NON-WHITE	WHITE	TOTAL	IN %
500 gm. or less	2	2	0	2	100
501-1000 gm.	15	11	3	14	93.3
1001-1500 gm.	33	14	0	14	42.4
1501-2000 gm.	49	2	0	2	4.1
2001-2500 gm.	167*	4	3	7	4.2
Total 2500 gm. or less	266*	33	6	39	14.6
2501 gm. or more	1863	5	2	7	0.37
Unknown	1	1			
Total	2130	39	8	47	2.2

Prematurity Rate—12.5%

*Includes one pair of conjoined twins considered as two infants.

AMRF PROGRAM

The University of Mississippi Medical Center applied for inclusion in the Perinatal Study Program of the American Medical Research Foundation; and since Jan. 1, 1961, has been included in this program[4] along with 95 other hospitals of varying sizes and circumstances distributed representatively throughout the country. This study provided duplicate forms containing both maternal and infant data arranged in such a manner that the information may readily be transferred to punch cards. At the end of the year it will be possible for the data for each hospital to be analyzed as they desire. In this way we expect that more complete annual statistics will be readily available at this hospital. It will be also possible to evaluate this institution against other hospitals in the study.

TABLE II

FETAL MORTALITY RATE BY BIRTH WEIGHT UMC 1960

Birth Weight	*Total*	*Liveborn Infants*	*Fetal Deaths* NON-WHITE	WHITE	TOTAL	*Fetal Mortality Rate**
500 gm. or less	3	2	1	0	1	33
501-1000 gm.	19	15	4	0	4	21
1001-1500 gm.	41	33	8	0	8	19.5
1501-2000 gm.	53	49	4	0	4	7.5
2001-2500 gm.	169	167	2	0	2	1.2
Total, 2500 gms. or less	285	266	19	0	19	7.7
2501 gm. or more	1878	1863	13	3	16	0.8
Unknown	6	1	5	0	5	
Total	2170	2130	37	3	40	1.8

*Number of fetal deaths in the hospital per 100 births in the hospital (including not only liveborn infants but also any product of conception without evidence of life).

Perinatal loss per 100 births—4.0%.

CHIEF DIFFICULTIES

The chief difficulty encountered in this study was meeting the monthly deadline for submission of statistics and protocols. However, the information needed is actually readily available. Another possible difficulty, especially in a teaching institution with medical students present, is that the necessary self-criticism or criticism of the actions

of others might be misconstrued. However, this does not seem to have created a recognizable problem. Because the majority of our patients are on the ward service, the problem of providing necessary anonymity in regard to physicians directly responsible for obstetric and pediatric care has not frequently arisen. These conferences have provided us with better interdepartmental liaison, with some constructive suggestions for the avoidance and management of difficulties, and a better knowledge of our problems. We hope it has been stimulating to the students, interns, and residents.

TABLE III
NEONATAL DEATHS BY CAUSE UMC 1960

Cause	*Weight*							*Total*
	500 GM. OR LESS	501-1000	1001-1500	1501-2000	2001-2500	2500 GM. OR LESS	2500 OR MORE	
Post Natal Asphyxia and Atelectasis		5	9	2	4	(20)	1	21
Injury at Birth					1	(1)	1	2
Congenital Malformations			2		1	(3)	5	8
Infections			2		1			2
Blood Dyscrasias								
All other known causes								
Unknown causes								
(a) Prematurity Unqualified	2	9	1					13*
(b) Other								
Total								47*

*Includes one infant not weighed.

It has become clear that there is little real point in discussing perinatal mortalities unless autopsy data are available. Studies reported from the Johns Hopkins Hospital showed that the clinical impression of the cause of death and the actual pathologic findings agreed in only 60 per cent of fetal deaths and only 32 per cent of deaths in the first two weeks of life.[5] Since our experience has been similar, perinatal autopsies have acquired new importance and hence the UMC autopsy rate in this age group has risen. ★★★

2500 North State Street

REFERENCES

1. Robinson, Jo Newell: A Positive Approach to Perinatal Mortality Studies, J.M.S.M.A. 1:549 (Oct.) 1960.
2. Committee on Maternal and Child Care of the Council on Medical Service, A Guide for the Study of Perinatal Mortality and Morbidity, Chicago, AMA, 1959.
3. American Academy of Pediatrics: Hospital Care of Newborn Infants, 1957.
4. American Medical Research Foundation Perinatal Study, 4920 Frankford Avenue, Philadelphia 24, Pa.
5. Nesbitt, Robert E. L., Jr.: Perinatal Loss in Modern Obstetrics, Philadelphia, F. A. Davis Company, 1957, p. 5.

ON EXPERTS

Charles Burton Marshall, former member of the State Department's Policy Planning Staff, in a discussion with former professors now in government: "The idea that a scholar has any more insight into the process of history in the making is not necessarily more true than the notion that a gynecologist makes the best lover."

Hip Fracture Management: 125 Consecutive Cases

L. VAUGHN RUSH, JR., M.D., and LESLIE V. RUSH, M.D.
Meridian, Mississippi

A series of 125 fractures of the neck and trochanters of the femur is presented in this discussion. All cases were operated on with a total mortality of 6.4 per cent. The average age was 74.6 years with the youngest patient being 23. The author advocates rapid rehabilitation with each case being operated on at the earliest moment that the physical condition can be made optimum. He discusses the fixation and healing of the fracture types represented in this series.

THE MOST IMPORTANT consideration in the management of hip fractures is that the patient not die. Secondly, his entire body should become functional at the earliest possible moment. The fracture itself should be anatomically reconstructed and stably fixed to encourage healing and minimize residual disability. In short, the patient should be returned as rapidly as possible to his regular daily routine.

For the past several years the Departments of Medicine and Surgery of Rush Brothers Clinic have collaborated in an attempt to approach this ideal. During the interval between Jan. 1, 1958, and July 1, 1960, a total of 125 fractures of the neck and trochanters of the femur have been treated and the results critically reviewed. Ninety-one cases (72 per cent) were followed.

MORTALITY AND AGE

In this series all patients were operated upon. There were eight deaths during the hospital stay or a mortality of 6.4 per cent (Chart 1). All patients survived the surgical procedure. One sudden death occurred 12 hours after surgery, apparently from coronary occlusion. The other deaths occurred between the first and sixth weeks.

The preoperative complications were many and varied and are not listed here because all patients presenting themselves for treatment were operated upon. There were two superficial wound infections which were easily controlled. Fat embolism did not appear to be a factor.

The average age was 74.6 years. The youngest patient was 23. The oldest patient is in this series twice, once at the age of 97 and again at 98, successfully surviving both operations and becoming ambulatory.

Read before the Section on Surgery, Mississippi State Medical Association, 93rd Annual Session, Biloxi, May 9-11, 1961.

ROUTINE CARE

Surgery is planned regardless of the general physical condition of the patient unless death is imminent (Chart 2). On admission the patient is turned over to the internist for preoperative work-up. This consists of history and physical examination, routine laboratory, x-ray of chest, electrocardiogram, and blood chemistry or other indicated tests. Two pints of blood are made available for surgery.

The internist posts the case for surgery as soon as he feels immediate physical deficits are satisfactorily corrected. This takes into consideration such indications as preoperative digitalization, fluid and electrolyte balance and transfusions.

The surgeon and internist collaborate on postoperative treatment. Patients are up in the wheel chair on the first postoperative day. Leg dangling begins as soon as the patient can sit on the side of the bed. Use of the invalid walker is usually permitted on the fifth or sixth day. The average patient is discharged between the tenth and fourteenth day after learning to use the walker.

HEALING AND FIXATION

Trochanteric Area: Figure 1. All cases were fixed by Smith-Petersen nail and anchor plate.

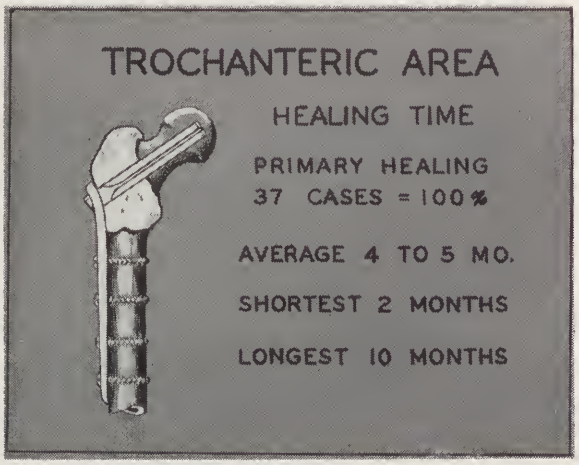


Figure 1

In one case in which the plate was not used, a secondary operation was necessary to add the plate.

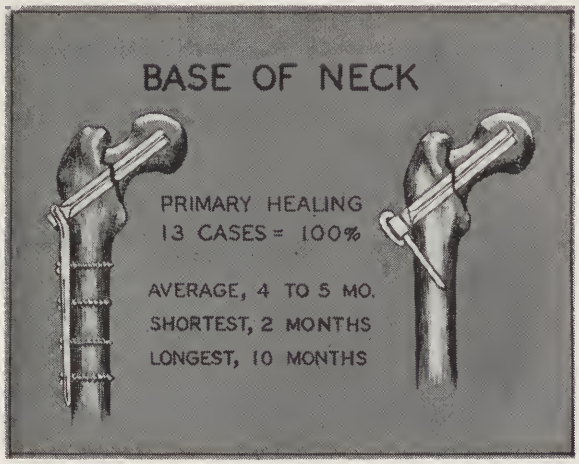


Figure 2

There were seven mild and two moderate varus deformities. All were due to inferior telescoping of the base of the neck.

Base of Neck—Vertical Fractures: Figure 2. All cases but one were fixed with the Smith-Petersen nail and anchor plate or the Rush cross-pin except one. (Note: All fractures lateral or distal from base of neck required an anchor plate.)

Neck of Femur—Vertical Fractures (Pauwell No. 3): Figure 3. In all cases the head was reduced into valgus position. All were fixed by a Smith-Petersen nail (in one case two nails because of large neck) and without anchor plate. All nails were introduced in the shaft below the level of the lesser trochanter and driven vertically into the head to maintain the valgus position.

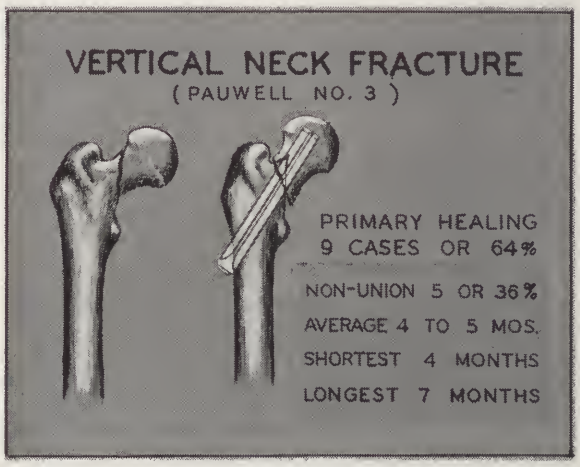


Figure 3

The invalid walker was permitted in all cases within one week—three cases being invalid could not use the walker until the third to sixth week. One patient bore full weight immediately. The majority gradually increased their weight bearing until the third or fourth month.

Five cases (36 per cent) went to nonunion or required femoral head prosthesis. In one case, the nail avulsed from the osteoporotic head and a prosthesis was applied at three weeks. One case required the secondary application of an anchor

HIP CASES

CONSECUTIVE	125
OPERATED UPON	125
NOT OPERATED UPON	0
INFECTIONS	2
HOSP. MORTALITY	8
HOSP. MORTALITY PER CENT	6.4

AGE

AVERAGE AGE 74.6 YEARS
YOUNGEST, 23 YRS.– OLDEST, 98 YRS.

AGE	NO. CASES	DEATHS	% MORTALITY
UNDER 60	12	0	0. %
60 — 69	21	1	4.7 %
70 — 79	48	4	8.3 %
80 — 89	37	3	8.1 %
90 — 98	7	0	0. %

SURGICAL MORTALITY

1 WEEK 1 CASE
CORONARY 12 HOURS
1-6. WEEKS 7 CASES
2 PULMONARY EMBOLISM
2 PNEUMONIA
2 C.V. ACCIDENT
1 GENERAL DEBILITY
ONE CASE GENERALIZED CARCINOMATOSIS NOT INCLUDED.

Chart 1

PREOPERATIVE CARE	SURGERY	POST-OPERATIVE
1. Internist posts case for surgery	Cardiac monitor	Internist continues in supportive therapy
2. X-ray chest. EKG. blood chemistry	Internist available for consultation	1st. Post Op. Day - Wheel chair
3. Rapid correction of physical deficits *digitalization fluid and electrolyte balance transfusions etc.*	Two pints blood available for surgery.	2nd. Post Op. Day - Leg dangling
4. Surgery as soon as physical condition optimum.		6th. Post Op. Day - Invalid walker

Chart 2

plate because of the nail's shifting into a varus position.

Midneck Fracture: Figure 4. Two cases required a secondary cross-pin because of backward migrating of the nail. There were five cases (50 per cent) demonstrating some type of deformity. In three cases there was x-ray evidence of varus deformity and in two cases there was shortening of the femoral neck.

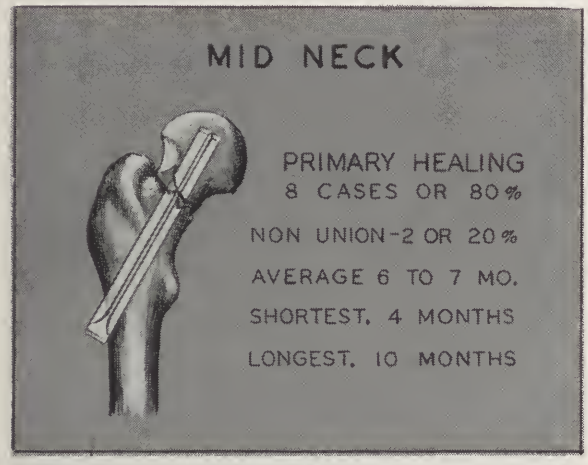


Figure 4

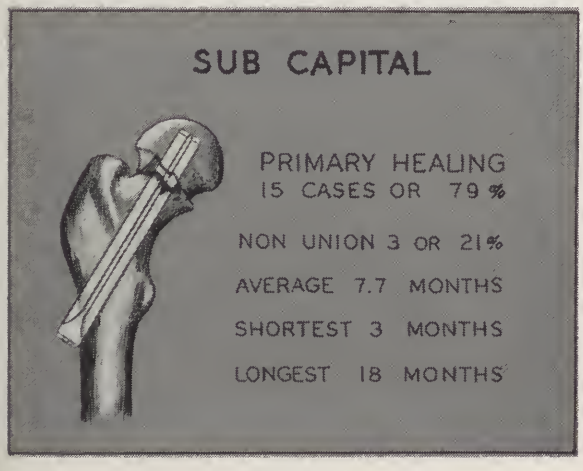


Figure 5

Subcapital Area: Figure 5. In the subcapital area there were seven cases (36 per cent) showing x-ray evidence of some type of deformity. Five cases demonstrated shortening of the neck, two cases showed varus deformity, and one case developed aseptic necrosis. Three nonunions occurred. In two of these, the cross-pin was not used and the Smith-Petersen nail migrated backward and avulsed from the head. In the third case fixation of the head by four small pins was not stable.

HEALING

Primary union occurred in all fractures at the base of the neck and in the trochanteric region.

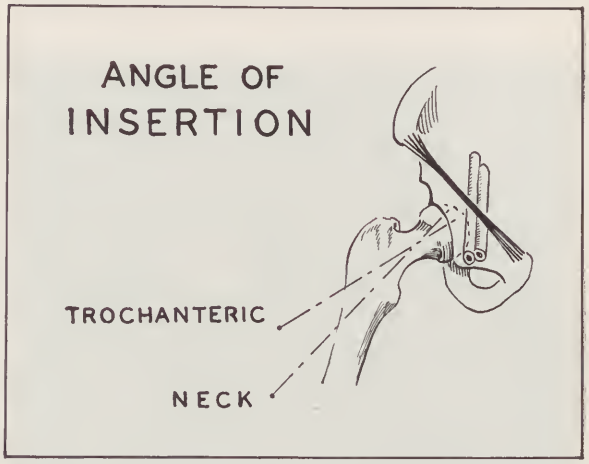


Figure 6. Proper angles for inserting Smith-Petersen nail to secure best fixation in valgus position.

The healing problems were in the subcapital, midneck fractures, and vertical neck fractures. There appears to be an important relationship between healing and the manner of reduction and internal fixation (Figures 8 & 9).

When the anchor plate is to be used in the trochanteric region, the nail is inserted in a more horizontal fashion than for neck fractures. By so doing, the angle of the prebent plate tends to produce a valgus position, for compression and better healing.

In neck fractures the nail is best inserted from a point lower on the shaft. Here the cortical bone is thicker and more prone to split from the pressure of the nail. This is avoided by cutting a



Figure 7. Starter for Smith-Petersen nail to avoid splitting bone. An expactor attached simplifies periodic loosening of instrument from bone as channel is cut.

channel for the nail using the nail starter (Figure 7).

In the base of the neck fracture and trochanteric area all cases were fixed by a Smith-Petersen nail and anchor plate and all healed primarily.

In vertical fractures of the neck (Pauwell No. 3) primary healing occurred in 64 per cent of the cases; 36 per cent were failures. In the midneck fractures primary healing occurred in 80 per cent of the cases with some residual disability in 50 per cent. In subcapital fractures, primary healing occurred in 79 per cent of the cases. Surprisingly, in the subcapital area no nonunion occurred in a



Figure 8

case which had a cross-pin to prevent backward migration of the nail.

BEST RESULTS

Best results in the fractures of the subcapital area, vertical neck fractures, and midneck fractures occurred in those cases which were fixed in a valgus position with a Smith-Petersen nail introduced at or below the level of the lesser trochanter and driven vertically into the head and transfixed with the Rush cross-pin. In many of these cases early weight bearing was permitted cautiously with encouragement of healing. Without the cross-pin fixation with the Smith-Petersen nail there was a tendency to backward migration of the nail with avulsion of the osteoporotic head from the nail in certain cases. Unless healing occurs rapidly, telescoping of the neck into the head or shortening of the neck, when the cross-pin is used, can result in the nail penetrating the head to cause hip pain.

The percentage of the development of aseptic necrosis could not be evaluated in these cases because they are too recent for accuracy. Consequently, the indications for the primary applica-

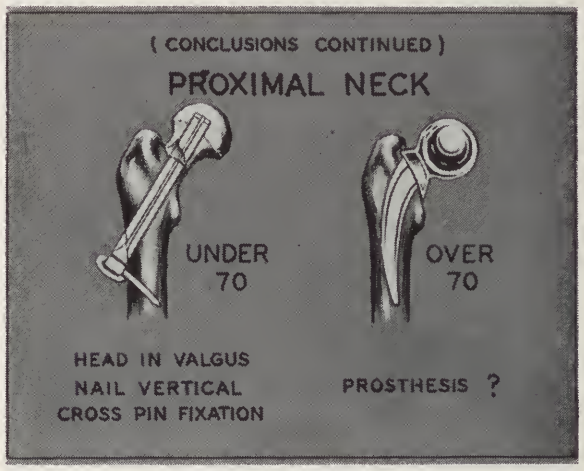


Figure 9

tion of the femoral head prosthesis could not be accurately determined from this series.

DISCUSSION AND SUMMARY

The total mortality of 6.4 per cent in this consecutive series of 125 patients demonstrates the value of rapid rehabilitation. It must be further emphasized that all patients, despite the serious preoperative complications, were surgically treated by internal fixation as soon as their physical condition could be made optimum.

MANPEL SERIES

These results compare most favorably with those reported by Manpel, Marzulli and Boley of New York.[1] They found the operative mortality to be 23 per cent and the overall hospital mortality 31 per cent in a series of 496 patients admitted to Queens Hospital Center in the four-year period from 1955-1958. Hip pinning was done in 486 patients of their series and all were done by

resident surgeons under supervision of an attending staff surgeon. The interval between admission and operation was seven and three-tenths days, as compared with ours of approximately two days.

A surprising finding in our series was that in seven patients in the tenth decade the surgical mortality was zero.

Infection and incidence of fat embolism does not appear to be a determining factor in this form of management.

CONCLUSIONS

1. A series of 125 hip cases treated by rapid rehabilitation is critically reviewed.

2. Rapid rehabilitation means operating on all cases in which death is not imminent at the earliest moment that the physical condition can be made optimum. The patient is placed in the wheel chair 24 hours after surgery, dangling the legs immediately thereafter, and becomes ambulatory within one week if his physical condition permits.

3. Healing in the area of the base of the neck and trochanteric area is almost universally good.

4. There appears to be little difference in the healing tendency in midneck fractures and in subcapital fractures. Vertical neck fractures (Pauwell No. 3) healed poorest.

5. Fractures of the subcapital area and midneck region appeared to heal better if reduced into a valgus position, transfixed as vertically as possible with a Smith-Petersen nail with the addition of a cross-pin to prevent backward migration of the nail. ★★★

1817 Fourteenth Street

REFERENCES

1. Manpel, J.; Marzulli, V.; and Boley, S. J.: The Fractured Hip, A Complication of Aging, A.M.A. Arch. Surg. 82:474-477 (March) 1961.

NEUTER GENDER

Warning from a British population expert: Traditional methods of birth control—even if *everybody* practiced them—may still not take care of the population explosion. Dr. Joseph Walker's proposal: Development of a serum to destroy the "love factor" in human beings, a psychological approach to get rid of sexual emotion as well. Using the neuter ants and bees as examples, Dr. Walker points out: "If anyone were to claim that sexual emotion was good as an end in itself, let him be reminded that all the great love stories of the world are tragic." He foresees greater tranquility and security as a result of the nonsexy approach.

—*The Insider's Newsletter*

The Etiology of Sudden Blindness

S. G. MOUNGER, M.D.
Greenwood, Mississippi

Cases of transitory blindness or semi-blindness occur frequently with the vast majority being caused by some type of vascular disturbance. The author discusses the differential symptoms caused by carotid artery occlusion, hypertensive vascular disease of the retinal or ophthalmic arteries, arteriosclerosis, and brain tumors. He considers the condition commonly called temporal arteritis or giant cell arteritis and presents a case report.

SUDDEN BLINDNESS OCCURS with enough frequency to be of interest to all physicians no matter what branch of medicine they practice. Nothing could be more frightening than suddenly to be struck blind even though the blindness may last only a few moments. It is even more alarming when the episodes recur with any degree of frequency. These blackouts last from only a few moments up to an hour or more. Sometimes they are related to posture or to certain activities. In this paper I shall try to present briefly the more frequent causes of this condition and to elaborate a little more fully on one cause in particular.

The most frequent cause of sudden blindness is carotid artery occlusion. This condition results in blindness in one eye with numbness or motor signs and symptoms on the opposite side of the body. The blindness may be transitory lasting only a few moments, but it may become permanent. Probably the most characteristic single finding is a significant difference in the retinal arterial pressure of the two eyes when measured by the Baillart ophthalmodynamometer.

VASCULAR DISEASE

Those cases not associated with central nervous system disease may be due to arteriosclerosis or hypertensive vascular disease of the retinal or ophthalmic arteries. Here the blackouts almost always involve one and the same eye. They may be accompanied by gross evidence of vascular disease elsewhere, such as angina pectoris or intermittent claudication. It is interesting to remember that the blackout periods occur intermittently and over a long period of time, sometimes ten or twelve years, without leading to permanent irreversible retinal damage. They may regress and improve due to the building up of collateral circulation. There may well be an element of spasm in these cases and these may be relieved by vasodilators such as nitroglycerin.

BRAIN TUMORS

Another group of cases is those due to tumors located at the base of the brain where they can either cause pressure directly on the optic nerve or jeopardize the blood supply of the nerve. Such tumors as meningiomas, pituitary tumors, or frontal lobe tumors fall into this category. Intermittent ischemia is probably the direct cause of the blackouts. Brain tumors should be suspected and looked for especially in cases of sudden blindness which are accompanied by headache, nausea, increased spinal fluid pressure, or in which there is a permanent scotoma in the visual field.

In a few cases, no organic basis can be found for the blackouts, and here psychogenic factors must be considered as a cause. Usually the histories are much more obscure and vague, varying from episode to episode. We rarely find permanent damage or total blindness in these cases. Probably they are related to migraine equivalents or tension states.

Another condition which causes an appreciable number of cases is the one commonly called temporal arteritis. This title is really a misnomer as we now know that the arteritis exists in numerous

Read before the 76th Semi-annual Meeting of the Delta Medical Society, Greenville, Oct. 11, 1961.

vessels in addition to the temporal arteries. For this reason giant cell arteritis may be the preferred name.

The clinical picture is characterized by more or less severe headache accompanied by deterioration of vision which may be slow, or fast and dramatic. Fever and an elevated erythrocyte sedimentation rate accompany the visual disturbance. The constantly shifting angitis gives the condition a protean nature, and the patient may simulate any number of conditions such as influenza. The temporal arteries become thickened, pulseless and tender. This is due to the involvement of the arterial walls by the granulomatous giant cells. The pathology is chiefly in the media, although all the layers are involved. The granulations are nontuberculous and show no caseation. Giant cells are usually present in the media. Ultimately there is narrowing and occlusion of the lumen. The pathology is very similar to that of polyarteritis nodosa.

EXAMINATION OF EYES

Examination of the eyes may show few changes. Transient ptosis and muscle weakness may occur. The fundus may show some ischemia of the optic nerve head with some papilledema. This usually subsides quickly, leaving a pale or grey colored disc. There are rarely any changes noted in the retinal vessels.

The eye symptoms of recurring transitory amblyopia may precede the other findings by a considerable period of time. This is due to the fact that the ophthalmic arteries may be involved before the temporal or other cranial arteries. Hence, while biopsy of the temporal arteries may be diagnostic, one should not delay treatment just because biopsy may not reveal the typical findings.

Hollenhorst[4] and associates summarized their findings in 175 cases of temporal arteritis and found blindness in one or both eyes in 42 per cent of the cases. They emphasized that absolute diagnostic proof should not be awaited before instituting sight-saving therapy.

Occlusion of the ophthalmic arteries alone can not explain sudden loss of vision or permanent changes in the optic nerve. Both the primary source of blood supply of the optic nerve and its collateral supply must be involved before ischemia sufficient to produce infarction and permanent damage of the optic nerve can occur.

It is not the purpose of this paper to go into the treatment, but I might mention that vigorous active treatment with corticosteroids, vasodilators, and anticoagulants offers much for these patients. ACTH and one of the many excellent new corticosteroids by mouth, gives the best prospects of preventing blindness, which all too often is the result of this disease.

CASE REPORT

Mr. A. B., white male, was seen in my office on Sept. 6, 1960. He gave a history of having experienced many episodes of sudden loss of vision over a period of five or six months. The episodes lasted three or four minutes. Vision usually would grow dimmer and in a few seconds was completely gone; then vision returned over a period of several seconds and appeared to be perfectly normal again. These episodes had occurred on numerous occasions, alternating from one eye to the other. These episodes sometimes were associated with a sensation of dazzling lights or lightning flashes, but this was not always the case. There were some headaches associated with the episodes, but these were not constant.

Examination of the fundi through the dilated pupils was essentially negative. The retinal vessels were not remarkable. There was no evidence of hemorrhage or thrombosis. Nerve heads were normal. Intraocular pressure was within normal limits. Vision at the time of my first examination was 20/20 but the visual fields were somewhat narrowed.

The patient was referred to neurosurgeons for neurological studies. These were entirely normal. Spinal fluid was normal and under no increased pressure.

Bilateral carotid arteriograms were done and found to be within normal limits. The neurosurgeons felt that their studies ruled out serious intracerebral or vascular pathology. They felt that the condition was an unusual form of migraine.

The patient was seen again on Sept. 29, and reported that he continued to have frequent episodes of transient blindness. The blackouts seemed to be precipitated by bending over or straining. While the episodes usually lasted only a few minutes, they did occasionally last up to three hours.

When seen on Oct. 4, the visual fields were considerably narrowed, although central vision was still 20/20.

On Oct. 18 he reported that he had done well for the previous week, but that at 7 a.m. that morning he had a blackout following straining at stool. The right eye was completely blind for 30 minutes; then he could see light, but not form, off and on for the next four hours until about noon when sight returned.

At this time, despite the lack of any specific signs, I felt that this might be a case of arteritis and placed him on corticosteroids—Medrol. This was continued, and when seen again on Nov. 10,

1960, he stated he had had no more episodes of blacking out. Visual fields were much wider at this visit and vision was 20/20.

He had a recurrence of the blackouts on Jan. 14, and Medrol therapy was begun again. He has had only one very brief momentary failure of vision in the right eye since that time. ★★★

310 Dewey Street

REFERENCES

1. Spencer, W., and Hoyt, W. F.: A.M.A. Arch. Ophth. 64:862-867 (Dec.) 1960.
2. Cameron, A.: Temporal Arteritis in General Practice, Brit. M.J. 5162:1291-1296 (Dec.) 1959.
3. Mosher, H. A.: Prognosis of Temporal Arteritis, A.M.A. Arch. Ophth. 62:641-644 (Oct.) 1959.
4. Wagener, H. P., and Hollenhorst, R. W.: The Ocular Lesions of Temporal Arteritis, Am. J. Ophth. 45:617-630, 1958.
5. Cogan, D. G.: Blackouts, A.M.A. Arch. Ophth. 66:-180-187 (Aug.) 1961.

DIVORCÉS ANONYMOUS

Hollywood's record remarriage rate is being actively undermined, according to *Insider's Newsletter,* by a new organization serving as a sort of Divorcés Anonymous (for ex-husbands only). Purpose of the club is to bolster the resolve of disillusioned males in danger of making the same mistake again. Before a man pops the second, third or umpteenth question, he's encouraged to call a central phone number. A solicitous voice quietly reads him the transcript of his latest divorce proceedings. If this fails to cool his pro-marital ardor, tape recordings of howling children, nagging wives, and complaining mothers-in-law are added. Note: The club is supposed to retrain wifeless males in basic do-it-yourself domestic chores, so that they don't succumb out of sheer discomfort.



Go ahead, Orville, but it won't fly!

● But it *did* fly and Orville and brother Wilbur had much less with which to work than the Mercury MA-4 spacecraft (left) which flies, too. Ever seen one? You will at MSMA's 94th Annual Session as the featured scientific exhibit along with other important presentations on Mississippi medicine in the space age. The massive space program of the United States depends upon many scientific disciplines and among these, medicine is indispensable. Recognizing this, the Mississippi State Medical Association will sponsor one of the most significant scientific programs of the decade as an annual session feature when a Symposium on Space Medicine is presented.

● Four internationally known leaders in the space effort will appear before the symposium: Hubertus Strughold, M.D., Ph.D., professor of space medicine and chairman, Advanced Studies Group, USAF Aerospace Medical Center; John Paul Stapp, M.D., Ph.D., Sc.D., Colonel, USAF (MC), special assistant in aerospace medicine, USAF Aerospace Medical Center; David G. Simons, M.D., Sc.D., Lt. Colonel, USAF (MC), chief, Bioastronautics Branch, Department of Space Medicine, USAF School of Aviation Medicine; and the Honorable John Stennis, United States Senator and member of the Senate Committee on Aeronautical and Space Sciences and chairman, Senate Subcommittee on Military Preparedness Investigating.

● The occasion? MSMA's 94th Annual Session, May 8-10, 1962. ● The place? Jackson, Hotel Heidelberg. ● The feature? Symposium on Space Medicine, Wednesday morning, May 9, 1962. ● Who may attend? MSMA members and specially invited guests—only. ● Anything else of interest? Seven scientific sections, nearly 20 specialty societies, the House of Delegates, medical alumni reunions, social occasions, and 89 exhibits.

● Get a reservation soon.

Symposium on Space Medicine
94th Annual Session
Mississippi State Medical Association, Jackson
May 8-10, 1962

Truly a



Abars Pharmaceuticals has won the respect of the medical profession of the Magnolia State. In fact, its integrity for setting and maintaining high product standards and its dedication to service have led Abars to an enviable position . . . today Abars products are available in all drug warehouses serving the medical profession of this state.

All of Abars products are ethical . . . and meet the most exacting standards and requirements of state and federal governments. Abars' own methods of strict control include its Medical Advisory Board composed of active practicing physicians, all of whom are past presidents of MSMA or the MAGP. The services of the nation's largest testing laboratory—Scientific Associates—are used, insuring the exacting standards set by the management and the Medical Advisory Board.

To Be of Service to the Medical Profes

eavyweight' among

algesic-antipyretic agents

DIPREX

. . . Abars brand of Dipyrone

DIPREX is Abars' brand of Dipyrone. A 50% aqueous solution of sodium—1—Phenyl—2, 3,—Dimethyl—4—Aminopyrazolon—N—Methanesulfonate. This synthetic chemical compound is receiving wide attention in the non-narcotic treatment of acute pain. Indications: Biliary and Renal Colic, Postoperative Pain, Migraine Headache, Neuralgia, Gout, Lumbago, Rheumatism and Angina Pectoris. Developed and used extensively in Europe since 1931, this product has now gained prominent acceptance in the United States. An example of professional commentary in this country are these statements* by Morris Joseph, M.D., F.A.C.S., from his summary of experience with 1,000 intravenous injections:

"In evaluating dipyrone as an unusual analgesic, the following facts reveal themselves. There is a promptness and effectiveness of relief in a host of conditions. The absence of any serious untoward effects is invaluable. The elimination of any possibility of addiction is extremely important. . . .

"The benefits of dipyrone in ordinary severe types of pain encountered in office practice cannot be too strongly emphasized. . . .

"The value of putting a suffering patient at ease and creating a feeling of well-being is a real boon. Pre- and postoperative use of dipyrone in the hospital, by which relief from pain results without production of a state of clouded consciousness, can make the work of the hospital personnel far easier.

"The antipyretic action of the drug is of much value in patients with elevated temperatures. Here the work for the hospital personnel is alleviated."

Dosage: 2 to 5 cc. or 1 to 3 tablets depending on the severity of the pain and the response of the patient. Diprex injectable may be administered intravenously, intra-muscularly or subcutaneously.

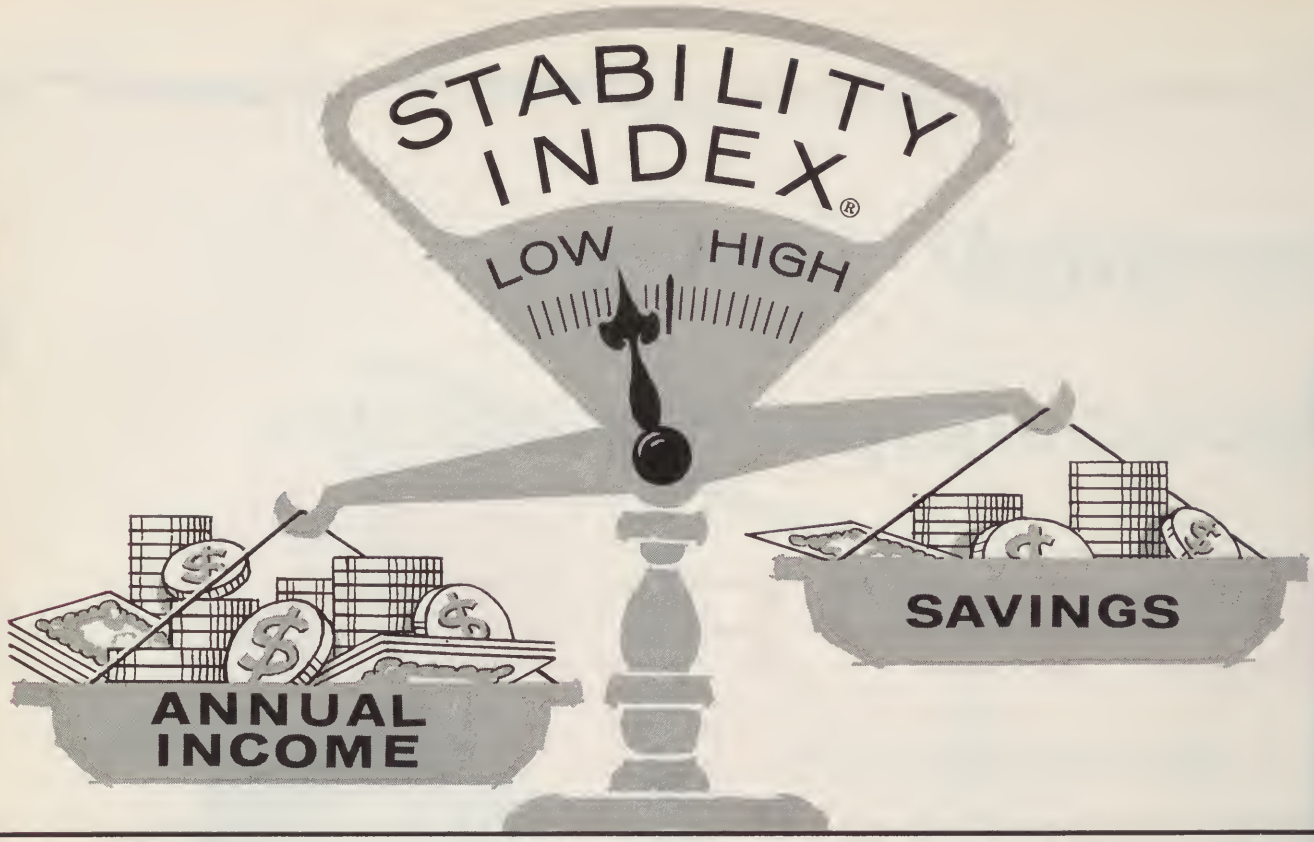
SUPPLIED: 30 cc. vials and 5 gr. tablets—bottles of 100 and 1,000.

* Joseph, Morris. Dipyrone—The Dynamic Non-Narcotic Analgetic, J. Abdom. Surg. I:57-60 (May) 1959.

abars ETHICAL PHARMACEUTICALS

MEDICAL ARTS BUILDING · JACKSON, MISSISSIPPI

f Mississippi is Our Greatest Ambition



How does your STABILITY INDEX® balance up today?

Savings equal to at least one year's income—that's the Stability Index formula which thousands of First Federal's savers follow as they add regularly to their savings accounts. They've set a goal for themselves—and the habit of regular saving each payday is the way they'll reach that goal . . . **Regular saving**—$5 a week, $10 a month, or whatever amount you choose—has the security of a wise investment as you improve your Stability Index . . . **Perhaps you want** a new boat for fun and fishing on the Reservoir a few years from now. Perhaps it's a new car, or a new house, or an exciting vacation you want instead. Or maybe you're thinking ahead to the time when you'll have expenses of a college education or the need for retirement security.

Whatever your purpose, a First Federal savings account will help you reach your goal. Accounts are insured by a permanent agency of the Federal government . . . your savings are readily available for withdrawal . . . and the experience of First Federal's directors and staff assures sound, conservative management of your money. Visit us soon, or open your account by mail (P. O. Box 1818) and start building your Stability Index to a high level of financial security.



FIRST FEDERAL SAVINGS
AND LOAN ASSOCIATION

WESTLAND BRANCH at ROBINSON ROAD | **MAIN OFFICE: 204 SO. STATE ST.** | MEADOWBROOK BRANCH at NO. STATE STREET

JACKSON, MISSISSIPPI

Clinicopathological Conference XXV

Conducted by the Department of Pathology
Mississippi Baptist Hospital
Jackson, Mississippi

In CPC XXV, Dr. Jim G. Hendrick discusses the case of a two-year-old white male admitted to the hospital because of an abdominal mass. Ten to twelve days prior to admission the child developed a cough and the mother noted that the abdomen was becoming larger and firmer. After the child failed to respond to an enema, she took him to the family physician.

At the time of admission, the patient appeared grossly malnourished and was hygienically in a poor condition. On physical examination there were decreased breath sounds and dullness to percussion in the right base and also anteriorly on the right. There were a few fine, moist rales in the right lung base. Some coarse breath sounds were heard on the left. There was a large, firm, nonmovable mass in the right upper quadrant extending down to 2½ cm. below the umbilicus and across the midline toward the left. The veins were prominent over the abdomen and chest.

Other discussers in the February CPC are Drs. Kenneth Heard, James M. Packer, and David J. Vanlandingham.

THIS PATIENT WAS a two-year-old white male who was admitted to the hospital on Dec. 8, 1961, because of a chief complaint of abdominal swelling.

CLINICAL SUMMARY

Ten to twelve days prior to admission the child developed a cough, and the mother noted that the abdomen was becoming larger and firmer. After failure of response to an enema the child was taken to the family physician. The child appeared grossly malnourished and was hygienically in a poor condition. He was pale and had a protuberant abdomen. Pulse rate was 106 and the respiration rate 32. On physical examination there were decreased breath sounds and dullness to percussion in the right base and also anteriorly on the right. There were a few fine, moist rales in the right lung base. Some coarse breath sounds were heard on the left. There was a large, firm, nonmovable mass in the right upper quadrant extending down to 2½ cm. below the umbilicus and across the midline toward the left. The veins were prominent over the abdomen and chest. There were no other noteworthy physical findings.

LABORATORY DATA

In admission laboratory work the urinalysis showed a specific gravity of 1.004. The albumin and sugar were within normal range. There were no red blood cells or white blood cells. The hemoglobin was 9.3 gm. and the hematocrit 32 volumes per cent. The white blood count was 13,700 with 51 per cent segmented neutrophils, 38 per cent lymphocytes, 8 per cent monocytes and 3 per cent eosinophils. There was moderate hypochromia of the red cells with some variation in size and shape also observed.

On x-ray examination, a preliminary film of the abdomen showed a large mass predominantly in the right side extending over to the left upper abdomen with the right kidney shadow being seen through this mass. Excretory urogram showed prompt concentration of the dye bilaterally with satisfactory emptying. No structural abnormalities of the urinary tract were noted on either side. The calyceal system appeared fairly prominent, particularly on the right. Filling was not perfect. There was, however, no distortion of the calyceal system. An upper G.I. series showed no structural abnormalities of the upper gastrointestinal tract. The stomach and upper small intestine were dis-

placed to the left somewhat. The chest film was negative. On Dec. 11, 1961, an operation was performed.

DISCUSSION

Dr. Jim G. Hendrick: "It is nice to state that this is a case of abdominal swelling and abdominal mass because we cannot go too far wrong if we start off with that. You notice this child is two years old, white and male. He was admitted on Dec. 8, 1961, because of this chief complaint of abdominal swelling. Ten to twelve days prior to admission the child developed a cough, and the mother noted that the abdomen was becoming larger and firmer. After failure of response to an enema the child was taken to the family physician. The child appeared grossly malnourished and was hygienically in a poor condition. He was pale, and had a protuberant abdomen. The pulse rate was 106, and the respiratory rate was 32. It was stated that on physical examination there were decreased breath sounds and dullness to percussion in the right base and also anteriorly on the right.

"I would like to say that the finding of a respiratory infection in children at this time of the year does not mean very much because most of them seem to have a cold all the time, if you ask the mother. We would have to know a little bit more about the child's appearing malnourished and thin to know if that was significant in this case. So many times children at this age are rather thin and eat very poorly that I do not think that would mean very much to us."

Dr. Kenneth M. Heard: "There was some history of poor dietary intake."

Dr. Hendrick: "I think it is likely that you might have both things because many children are notoriously poor eaters at this age and you might have also some effect of whatever pathological situation is going on. Then you come down to this physical examination about the breath sounds and dullness. If we have a big mass in the abdomen and if it has any pressure at all on the liver, we are apt to have the diaphragm pushed up and the right chest might appear duller than you would expect to find. As to the rales, if the child had a cold, of course they could have been heard with that. Since the chest x-ray was negative, we will assume that the child did not have any metastasis from his abdominal lesion. There were a few fine moist rales in the right lung base, and some coarse breath sounds were heard on the left. Now we get down to the meat of the thing: there was a large, firm, nonmovable mass in the right upper quadrant extending to 2½ cm. below the umbilicus and across the midline towards the left. The veins were prominent over the abdomen and chest. There were no other noteworthy physical findings.

"We will come back and talk about the mass, but let's see if there is anything in the laboratory work that will be helpful. The urinalysis showed a specific gravity of 1.004, which is not unusual. The albumin and sugar were negative, and there were no red blood cells or white blood cells. Now this is helpful because one would think that if this mass were of renal origin, such as hydronephrotic kidney or Wilms's tumor, which can get quite large at times, there would be some findings in the urine; on the other hand, the urinalysis could be negative. The hemoglobin was 9.3 gm. and the hematocrit 32 volumes per cent. Now this is not an unusual finding in this age child with or without a tumor, but it is a little low. The white blood count was 13,700, with 51 per cent segmented neutrophils, 38 per cent lymphocytes, 8 per cent monocytes, and 3 per cent eosinophils. This is not an elevated white count, and the differential is not unusual. There was moderate hypochromia of the red cells with some variation in shape and size also observed.

X-RAY EXAMINATION

"On x-ray examination a preliminary film of the abdomen showed the large mass predominantly in the right side extending over to the left upper abdomen with the right kidney shadow being seen through this mass. In other words, the mass lay in front of the kidney. The excretory urogram showed prompt concentration of the dye bilaterally with satisfactory emptying. Now this is confusing to me. No structural abnormalities of the urinary tract were noted on either side. Then it goes on to say that the calyceal system appeared fairly prominent. It looks as though it were more prominent on the right side, but then it said that filling was not perfect. There was, however, no distortion of the calyceal system. I would just say here that at least we had no gross destruction or distortion of kidney structure which you would expect to find if the lesion were inherently a renal lesion in the kidney itself. It could be of the adrenal glands, or close by, just the same. An upper G.I. series showed no structural abnormalities of the upper G.I. tract. The stomach and upper small intestines were displaced to the left somewhat. The chest film was negative. An operation was performed.

"Well, we obviously have a large mass. It is not unusual for an abdominal mass to get tremendous before it is noted. Children oftentimes at this age are sort of "pot-bellied" anyway, and sometimes it is unbelievable that a mass will be as large as it is before it is noticed. Abdominal masses of large size are common under four years of age, and there are two conditions that occur most often—Wilms's tumor and neuroblastoma. Wilms's tumor, of course, arises from the kidney, and the neuroblastoma most often arises from the adrenal but may arise from the sympathetic structures up and down retroperitoneally, in the chest as well as the abdomen. The fact that it was a solid tumor, large, firm, and fixed, certainly indicates one of these two conditions. Both can become enormous. The surface of a neuroblastoma oftentimes is more nodular and more apt to extend across the midline, whereas Wilms's tumor more often is somewhat globular, and is a little bit smoother and usually is limited to one side of the abdomen.

"We can probably rule out any tumor involving the G.I. tract itself because usually that would not be so fixed. The G.I. series was normal and that would rule out most anything there. It would be most unusual to have a primary tumor of the liver; they have been described, but generally liver tumors in children are extremely rare. Liver tumors are often secondary, however, to a lesion somewhere else. Since this is a little boy, I do not think we have to think of a mass coming out of the pelvis; there are tumors that will get very large and extend up into the upper quadrant, especially from the ovaries in little girls. I think that we can rule out those pretty well. I would say that the first bet would be a neuroblastoma and second would be a Wilms's tumor."

Dr. Heard: "Dr. Packer, would you show the x-ray films now? Dr. Hendrick, we will give you another chance after you have seen the films."

RADIOLOGIST'S REPORT

Dr. James M. Packer: "There is certainly no evidence of a metastatic lesion in the chest. In the plain view of the abdomen which has been already described in the protocol, I think the principal thing we see here is this mass, and we see no calcification within the mass. I think the finding of calcification within the mass would help us a little bit to lean toward a neuroblastoma.

"The next study we have here was the I. V. pyelogram, and this was apparently where the confusion arose about the description. You can see the kidney shadow through this mass and we see here a little fullness of these upper calyces which you can see by comparison with the other side. It looks as though they are possibly compressible but you still get the impression that the mass is extrinsic to the kidney. There is no displacement of the kidney downward as we might expect with a neural tumor or an adrenal tumor. Now this lateral film is quite helpful in localizing this tumor. We can see both of the kidneys very clearly here lying in a normal posterior position with no evidence of forward displacement or anything else being retroperitoneal. We can clearly state that the lesion is not retroperitoneal in origin. The mass appears on this film to lie anterior to the kidneys in the general area, of course, of the liver."

Dr. Hendrick: "Can you separate it at all from the liver?"

Dr. Packer: "You cannot separate this mass from the liver. Now the only other film here that would be of any particular help is the film of the G.I. tract. The only thing that we found there was displacement of the stomach and the small bowel toward the left by this huge right-sided mass and it gives no information other than to further outline the mass as we have seen on these other films."

DISCUSSER'S DIAGNOSIS

Dr. Hendrick: "I believe that viewing the films changes my opinion. Both of these conditions which I had thought to be very likely would have to arise from the retroperitoneal region. It appears to me that we have a tumor that is continuous with the liver, and there you get into something very rare. There is no evidence of any primary tumor which might be metastatic to the liver. Primary tumors, particularly hemangiomas, which can be quite large sometimes, might occur. There can be actual malignancy, for example, a hepatoma, so rare that I would just be guessing in that. It seems after seeing the film that we have a lesion that is involving the liver and I would have to say that perhaps most likely it would be a hemangioma rather than a malignancy. Incidentally, on those other films I noticed that you did not see or no mention was made of any bone lesion anywhere. Often times a neuroblastoma metastasizes fairly early to bone, whereas a Wilms's tumor usually metastasizes to the lungs. I think that with these pictures we would have to dismiss the likelihood of these two tumors."

Dr. Packer: "One other thing I was wondering about was the possibility of a small primary tumor such as a neuroblastoma that actually is undetectable but with massive metastasis to the liver."

Dr. Hendrick: "I think that a child with metastases and that much liver involvement would be a lot sicker and perhaps would even have jaundice and some other symptoms. It is hard to understand how a child would be asymptomatic, but I think it is entirely possible that, as you have said, that it could be a metastatic lesion from some other area that we could not detect yet."

Dr. Heard: "Most neuroblastomas that we see are of considerable size."

OTHER POSSIBILITIES

Dr. David J. Vanlandingham: "Could a congenital cyst of the liver or kidney or duplication of the bowel give you a picture that looks like this?"

Dr. Hendrick: "I would say that a duplication of the bowel wall could certainly give you a very large mass. It seems that reduplication would be so closely in line with the intestine, the G.I. series would not have been negative. One would not think it would be so firm and fixed if it were a reduplication. I think that it is possible that a cyst involving the bile ducts, for example, might get extremely large sometimes, but from the appearance and feel of this mass, it appears to be intrahepatic."

Dr. Heard: "I was going to say that these masses in children sometimes get so big from whatever their origin that they cannot be moved around. This happened this morning. An eight-year-old girl had a tremendous mass that actually turned out to be an ovarian teratoma. Under anesthetic just before he operated, the surgeon could not distinguish it from the liver so he made his incision a little too high. He had to extend the incision to get the mass out. It had come up completely out of the pelvis."

Dr. Vanlandingham: "What about an echinococcal cyst?"

Dr. Heard: "For one to develop to that size would take a period of years, would it not? Of course that is something you have to think of around here since we are in a little endemic area."

Dr. Hendrick: "A pancreatic cyst should be considered. I saw one that was tremendous. It was lower, more central, and I don't think it would have been in this position."

FINAL DIAGNOSIS

Dr. Heard: "The surgeon made a very small incision and went right down on the liver which was the seat of a tremendous tumor mass. I believe he was unable to explore the rest of the abdomen too much, but with the microscopical picture we feel relatively sure that this is a primary liver tumor, and we think it fits into the category that has been called "infantile hemangioendothelioma." It is a tumor which will not metastasize but will kill the child in short order, just from replacement of the liver."

DIAGNOSIS: Hemangioendothelioma of liver, infantile. ★★★

1190 North State Street

BATTLE OF THE SIMIANS

Soviet scientists, needing neurotic monkeys for use in experiments on the effects of stress, have worked out a simple method for producing all the neurotic monkeys they can use. All they do is put two male monkeys and one female into a single cage. In due time the battle of the sexes produces three neurotic monkeys.

Book Reviews

Mayo Clinic Diet Manual (Third Edition). By the Committee on Dietetics of the Mayo Clinic. 222 pages. Philadelphia-London: W. B. Saunders Company, 1961. $5.50.

The Mayo Clinic Diet Manual is a comprehensive analysis of body requirements of basic foods, vitamins and minerals, composition of foods, diet prescriptions, sample menus, and new ideal weight charts. Food requirements are based on information published by the National Research Council using the "reference man" of 69 inches and age 50, requiring 1,630 basal calories and the "reference woman" of 64 inches and age 50, requiring 1,320 basal calories.

Many new diets have been added to this manual, and the diets in general have been greatly reduced in fat content. These include diets both for reduction and maintenance of weight. A diet high in polyunsaturated and low in saturated fatty acids has been added. The restricted sodium diet for children has been revised. A diet containing 0 to 5 gm. of protein and restricted in potassium for acute renal failure has been added together with a second diet of the same protein content for use in hepatic coma.

Diets for use with patients with diabetes have been planned to supply approximately 40 per cent of the calories from fat as compared with the previous level of 50 per cent. The fat content of the diet for disorder of the gall bladder has been reduced. The diets for sprue and celiac disease have been revised and include a gluten-free diet. A low calcium low phosphorus diet replaces the old low calcium diet; a 700 mg. calcium test diet has been added.

A table showing the fatty acid and cholesterol content of foods, one listing foods high in potassium, and another listing lean meat, fish, and fowl are included. Other lists include foods high in oxalic acid, high in iron, high in calcium rounding out a neatly arranged, clearly written, and thoroughly detailed reference manual for physician and dietician. It is not recommended for, nor prepared for, the patient because of its technical content and language.

DAVID J. VANLANDINGHAM, M.D.

Domestic Journals

An Inventory for Measuring Depression. A. T. Beck, M.D.; C. H. Ward, M.D.; M. Mendelson, M.D.; J. Mock, M.D., and J. Erbaugh, M.D.: Arch. Gen. Psychiat. 4:561-571 (June) 1961.

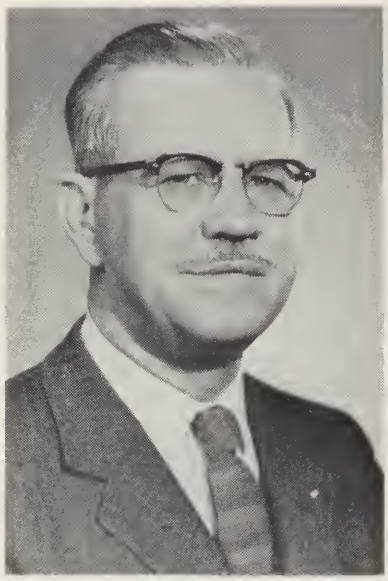
These authors describe a personality inventory they have devised and used on 200 subjects for assessing depth of depression. A guage for depth of depression would have many advantages, such as assisting in the evaluation of suicide likelihood.

The inventory consists of 21 symptom attitudes found to be present in the picture of depression. For each of these 21 symptom attitudes the authors have supplied from four to six statements which the doctor may read to the patient and from which the patient may choose the one he feels is most applicable to himself at the time. These statements are arranged on a four-point scale according to the degree of depression. Thus, "0" represents no depression present; "1," mild; "2," moderate; "3," severe. When more than one statement is given for a particular degree on this four-point scale, each of these statements is given equal weight, that is, they are alternate statements.

The examiner simply goes through the test with the patient, who may also have a copy of the test before him; and the appropriate number is circled as the patient indicates his choice of the most applicable statement. The final score is arrived at by adding the numbers circled. Thus, with twenty-one symptom attitudes, lettered "A" through "U," and four degrees of severity within each of these categories, a subject's choice could theoretically place him anywhere from "0" depth of depression to "63" depth of depression; and it would be easy to assign an adjectival rating of "none," "mild," "moderate," or "severe," according to the total numerical score.

The test statements are conversational, and some physicians might like to have this test at hand to give to patients who seem depressed. The text of the inventory is just large enough to be impractical to reproduce in an abstract, but it could be copied from the article itself, and this is suggested for anyone who wishes to have a somewhat objective method of assessing depth of depression.

OSCAR E. HUBBARD, M.D.



The President Speaking

'The Biggest Job'

LAWRENCE W. LONG, M.D.
Jackson, Mississippi

MISSISSIPPI'S 1962 REGULAR SESSION of the legislature has shifted into high gear with heavy emphasis focused upon finances, congressional redistricting, and a host of lawmaking problems which have been in the making during the biennium. MSMA's program, centering around the Good Samaritan law, reduction of the statute of limitation on professional liability, the permanent Kerr-Mills program, control of sources of ionizing radiation, the State Medical Education Board program, and a pure food and drug statute, is being brought before both houses.

Members of the Committee on Legislative Liaison—at least one key physician in each county—together with the district members of the Council on Legislation and the Board of Trustees will be calling on association members to work with senators and representatives in this important program.

The state medical association seeks only legislation in the interest of the public health and, where necessary, will oppose stated issues for the same—and no other—reason.

Through your JOURNAL MSMA, special letters, and bulletins, every member will be regularly advised and in emergencies, alerted with respect to development of legislation of health and medical interest. The biggest job before the medical profession in legislative activity is *not* in the committee hearing rooms where informed representatives of your association will furnish testimony on proposed bills, it is *not* in carefully prepared informational summaries and written statements which are supplied members of the House and Senate, and it is *not* the conference session among legislators and association leaders.

The biggest job *is* in your hometown where *you* discuss the issues with *your* representative and senator. It is your views he values and your assistance and advice he seeks. As to medical legislations in 1962, yours is the biggest job. ★★★

JOURNAL OF THE
MISSISSIPPI STATE
MEDICAL ASSOCIATION

Volume III, Number 2

February 1962

EDITORIALS

Chiropractic: Public Health Hoax Number One

WILLIAM E. LOTTERHOS, M.D.
Jackson, Mississippi

I

THE CITY OF DAVENPORT, IOWA, lost a grocery and fish dealer in 1885 when D. D. Palmer listened to and observed some visiting magnetic healers and decided that his body was charged with animal magnetism, that a man with animal magnetism had no right to waste it on haddock and flounder, and that it was his duty to pass it on to his fellow man.

This ludicrous, although factual, recitation of the genesis of chiropractic by Boyd imparts some notion of its founder's background in science. The birthday of the cult of chiropractic occurred a decade later in 1895 when Palmer claimed to have discovered the therapeutic benefits of punching on the human spine. But the growth of the cult seems hardly remarkable because irregular dogmas are rules rather than exceptions in all societies. The tragedy is not having them emerge but permitting their continued existence in an enlightened scientific age.

There are about 20,000 chiropractors in the nation who ply their trade with some degree of sanction and licensure in 46 states and the District of Columbia. Louisiana, Massachusetts, Mississippi, and New York deny these cultists any badge of legality or element of sanction.

II

There is no shred of demonstrable evidence to support and validate the dogma of chiropractic. Disciples of the cult contend that sickness and disease are mechanical in origin, the result of pinched nerves in and around the spinal column. By making chiropractic adjustments, they say, the condition is eliminated and health is—*presto*—restored. They deny the effect of bacteria, virus organisms, and pathogenic substances and they renounce immunization with a fervor difficult to describe.

The proof against the cult of chiropractic, the falseness of its premise, and its total opposition to scientific principle is overwhelming. But take two simple and obvious facts: if the premise were valid, it would have been discovered before the magnetic fish merchant of Davenport trotted it out and, second, if it were valid, medical science, engaged at this moment in trying to fathom prob-

Chairman, Council on Legislation, Mississippi State Medical Association.

lems of cancer, cardiovascular disease, and the nervous and mental disorders, would have recognized and accepted it long ago.

And if adjusting away "subluxations" will produce a cure, why are there no chiropractic veterinarians? After all, if chiropractic were good for people, then why should not it also be good for livestock and small animals?

No physician need be reminded that the chiropractor is unable to demonstrate even the mechanical aspects of his phony postulations. Vertebrae are rarely dislocated and those nerves issuing from vertebral spaces are so minute in comparison with the openings and so well padded that direct pressure upon them by the vertebrae is, for all practical purposes, virtually impossible. And what about the nerves which are remote from the spinal column?

III

Since organization of the Mississippi State Board of Health in 1877 and enactment of the basic framework of our medical practice act in 1882, enlightened legislatures have refused to compromise the public health by patronizing the whims of quacks, charlatans, cultists, and frauds. The state medical association and the Board of Health have stood fast in a righteous crusade against licensure and sanction of such groups.

But the chiropractors, for all their lack of scientific premise, manage fairly well in the public relations side of their endeavors. To the public, they proclaim that a law should be enacted to assure that only "qualified" chiropractors are permitted to work on two million Mississippi spines. To the legislature, they have, on prior occasions, offered support for measures designed to "police" and "limit" their practices. They even succeeded in conning a few physicians on that score, too.

In the first place, there can be little distinction between a "qualified" and an "unqualified" chiropractor. The four year school, the four thousand clock hours of instruction, and all the other sweet smelling emoluments of their peculiar professional attainments can't make a false dogma valid. Second, any degree of licensure—however limited—places the stamp of legality upon a cult and any statutory limitation is, in reality, a lawful definition and authorization for cultism.

Thus, the *status quo* of no law and no licensure is the best of all possible situations. This is the case in Louisiana, Massachusetts, Mississippi, and New York. Even though a handful of chiropractors hang out shingles in these good New England and southern commonwealths, they do so at the risk of prosecution for violation of the four respective medical practice acts. To "police" chiropractic by law is ultimately to grant the first degree of sanction.

IV

The last big push for licensure and legality by chiropractors in Mississippi was before the 1954 Regular Session of the Legislature. The proposal of painful memory, S.B. 1405, was defeated hands down in the Senate and never got before the House of Representatives. Eight years is a barely sufficient and respectable period during which to lick the wounds of a battle lost, rebuild the depleted war chest with new funds, and hope for the political demise of one's legislative enemies.

Perhaps the cultists are in for a shock for they should recognize that today's Mississippi lawmakers are more scientifically minded than ever before. In eight years, they have underwritten a four year medical school, constructed a magnificent physical plant for it, and collected under its roof a respected and capable faculty. Three score new hospital projects have been completed and other medical and related facilities have been begun from scratch or expanded.

On the national scene, the Stanford University Research Institute found, after an exhaustive study of chiropractic, that the spine punchers are generally falling on evil days. Their schools are in trouble, that is, the recruiting and profit-making



"Does the doctor have time to evaluate a suspected exhibitionist?"

aspects. Their numbers are diminishing and many states are correcting legislative errors of past years by easing out chiropractic licensure. The end is in sight and these cultists know it.

The public is becoming more sophisticated about health and this is to the disadvantage of the quack and the phony. Some few people will probably help support the irregular and spurious practitioner until the end of time but the predator upon human misery will get no succor in Mississippi. ★★★

1151 North State Street

REFERENCES

1. Boyd, C. E.: The Cult of Chiropractic, ed. 2, Chicago, American Medical Association and Louisiana State Medical Society, 1960.
2. Doyle, Kathleen C.: Science vs. Chiropractic, ed. 6, New York, Public Affairs Committee, 1959.
3. Chiropractic in California, Stanford Research Institute, South Pasadena, Calif., Stanford University, 1960.
4. Kennedy, R. B.: Pitfalls in Combatting Cultism, address, 1956.
5. Testimony of the Mississippi State Medical Association with respect to S. B. 1405, Mississippi State Legislature, 1954 regular session.

Let's Talk Mississippi Medical Training

The State Chamber of Commerce-Mississippi Economic Council sponsors a valuable and engaging program called "Let's Talk Mississippi." The idea is to develop and publicize information on important contributions of Mississippians and state organizations to social, business, and professional betterment of all citizens. Perhaps the chairman of this unique program designed to build Mississippi prestige in the community of states will want to take note of this significant fact:

Mississippi ranked third among all states in average per cent of male college graduates attaining medical degrees during the period 1950-59. And to lead the nation, it took another southern state, our "eastern" neighbor, Georgia.

The study was developed by the U. S. Public Health Service and released in its recent Monograph No. 66. Mississippi, USPHS says, had 8.7 per cent of its male college graduates go on to earn their M.D.'s. Among this group were 337 graduates of Ole Miss, 114 from Millsaps, 105 from Mississippi State University, 92 from Mississippi College, and 51 from Mississippi Southern College. Ole Miss ranked 25th among state universities in producing M.D.'s, the study said, pointing out that one out of every 12 male students graduating from the Oxford campus during the 50's became or will become physicians. And Ole Miss has 200 pre-med students now enrolled.

Despite the renting of clothing, gnashing of teeth, and wringing of hands by fuzzy-thinking do-gooders and others who are very nice people, Mississippi is busy training its next medical generation instead of hollering about any real or fancied shortage of physicians.—R.B.K.

Ceaseless Cecil Is At It Again

To find the New Frontier, go to Harvard, turn left, and continue on until you're out where the waste begins, There, in such select company as Ribicoff, Rusk, Bowles, Stevenson, Soapy, and Udall, may be found the Honorable Cecil R. King, a California congressman, with whom physicians are as familiar as they are with the etiology of pregnancy, tongue depressors, and aspirin. Not content with his H.R. 4222 and its proposed program of compulsory care of the aging under Social Security, Mr. King has hatched up another one-way ticket for tax dollars and state prerogatives which, if enacted, would affect every employer in the nation—including physicians.

The little legislative trinket in question is H.R. 7640 which seeks federalization of unemployment benefits. It would require states to pay the unemployed at least 50 per cent of their weekly wage up to two-thirds of the state's average weekly wage. This amounts to a 43 per cent increase in Mississippi and the money would come from additional taxes on employers by doubling the tax rate and extending the wage base from $3,000 to $4,800 per year.

And all employers of one or more persons would be within the meaning of the law. That's you, doctor.

But the complex formula for this new federal benefit apparently allows a slight margin for Washington overhead. The new and additional taxes which would be collected in Mississippi from employers are estimated at $16.7 million annually but the increased benefits payable to the unemployed under the program would amount to just $8.4 million.

Federalization of the unemployment benefit program will take away from the states the prerogative of adjusting these compensation programs to their respective economic conditions. Mr. King says the states have failed the unemployed by offering "inadequate benefits" but the fact is that the benefit check today will purchase 44 per cent

more goods and services than it would in 1939, inflation and zooming prices notwithstanding.

After H.R. 4222 and 7640, Mr. King should have an edge in qualifying for any awards bestowed by the Americans for Democratic Action. —R.B.K.

Not Alone Unto the Private Practitioner

Add this to the whodda-thought-it department: The U. S. Department of Justice is very much engaged in defending professional liability suits against physicians. At the end of 1961, more than 130 suits were pending with damages sought exceeding $32 million.

Four out of ten cases were filed with the Veterans Administration as defendant. Other suits were against medical departments of the armed services and the U. S. Public Health Service. All such suits will be heard in civil sessions of federal district courts. Since agencies of the government are named as defendants, the Department of Justice—not legal counsel for the agencies—draws the task of defense.

Chief bases for seeking redress in plaintiff's declarations are improper diagnosis and failure to diagnose a given disease or injury condition, untoward results of surgery, drug reactions alleged to have caused suffering or residual injury, foreign bodies introduced and allowed to remain in the patient during and after surgery, and administration of incompatible blood.

Except for state supreme courts, the same appellate tribunals are available to plaintiff and defendant in the "public" professional liability case. —R.B.K.

PERSONALS

ORLANDO J. ANDY, professor and chairman of the Department of Neurosurgery at the University of Mississippi School of Medicine, presented papers at the December meetings in New York of the Eastern EEG Association and Association for Research in Nervous and Mental Disease.

I. C. KNOX of the Vicksburg Clinic has been named first vice president of the Vicksburg Chamber of Commerce.

MICHAEL NEWTON, professor and chairman, Department of Obstetrics and Gynecology, University of Mississippi School of Medicine, was a guest lecturer at the Medical College of Georgia's postgraduate course on "Obstetric Problems in Private Practice." The course was held Jan. 23-25 at the Medical College.

STANLEY L. PHARR was honored by the citizens of Booneville on Dec. 27, 1961, which was officially proclaimed "Dr. S. L. Pharr Day." In making the proclamation Mayor M. W. Smith stated that Dr. Pharr ". . . has always held high the ethics of his profession and rendered service to suffering humanity above and beyond the call of duty."

WATTS R. WEBB, associate professor, Department of Surgery, University of Mississippi School of Medicine, was awarded the Shipley Award of the Southern Surgical Association at the group's meeting in Hot Springs, Va.

DAVID B. WILSON was voted a plaque of commendation in December by the Mississippi Hospital Association for his contributions to state and national hospital advancement. Mrs. Wilson accepted the award for Dr. Wilson who is on leave from his duties as director of the University Hospital to serve as commanding officer of the 134th hospital unit at Fort Polk.

DEATHS

ALFORD, THOMAS CLEVELAND, Mashulaville. M.D., Mississippi Medical College, Meridian, 1911; died Dec. 28, 1961, aged 78.

CREEKMORE, VIRGIL MARVIN, DeKalb. M.D., Memphis Hospital Medical College, Tenn., 1908; member of the American Medical Association; emeritus member of MSMA and member of the Fifty Year Club; died Dec. 8, 1961, aged 80.

GULLY, CHAMP MITCHEL, DeKalb. M.D., University of Nashville Medical Department, Tenn., 1904; died Dec. 19, 1961, aged 84.

LEWIS, CLYDE JAMES, North Meridian. M.D., Tulane University School of Medicine, New Orleans, La., 1923; Fellow of the American College of Surgeons; member of the American Medical Association; emeritus member of MSMA; died Dec. 2, 1961, aged 62.

Board of Health Names Dr. Garrison President, Swears in Two New Members at Jan. 4 Meeting

Dr. Harvey F. Garrison, Jr., Jackson pediatrician, was elected president of the State Board of Health during a called meeting held Jan. 4. He has served on the Board since 1948.

Dr. Garrison was elected to fill the vacancy of the former president, Dr. R. B. Caldwell of Baldwyn, who had served as president since 1952.

The new president is certified by the American Board of Pediatrics and holds membership in the American Academy of Pediatrics. He served as president of the Mississippi Chapter of the AAP in 1940-41. He is a member of the Central Medical Society, the Mississippi State Medical Association, the American Medical Association, and the Southern Medical Association.

Two new Board members, Dr. George Archer of Greenville and Dr. Dewitt Hamrick of Corinth, took the oath of office during the called meeting. Their appointments are for six year terms.



Dr. Harvey Garrison, Jr., at front center, was named president of the State Board of Health at the group's Jan. 4 meeting. From left to right are Dr. Dewitt Hamrick and Dr. George Archer, two new members of the Board, and Dr. A. L. Gray, executive officer of the Board.

Dr. Archer, who succeeds Dr. W. T. Wilkins of Clarksdale, received his premedical and medical training at Vanderbilt University and completed his residency in surgery at the Mayo Clinic in Rochester, Minn. He is a diplomate of the American Board of Surgery and a Fellow of the American College of Surgeons.

In addition to holding membership in Delta Medical Society, MSMA, and AMA, Dr. Archer is a member of the Southern Medical Association and the Southeastern Surgical Congress.

As representative for SBH district one, Dr. Hamrick succeeds Dr. R. B. Caldwell of Baldwyn. The Corinth otolaryngologist is a native of Meridian and received his medical degree from the University of Virginia School of Medicine at Charlottesville. He is a former professor of pathology at the University of Mississippi School of Medicine and a diplomate of the American Board of Otolaryngology.

Dr. Hamrick is associate editor of the JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION and a member of the House of Delegates. He has been chairman of MSMA's Section on Eye, Ear, Nose, and Throat and president of the Louisiana-Mississippi O and O Society.

In addition to holding membership in the Northeast Mississippi Medical Society, the state medical association, and AMA, Dr. Hamrick is a member of the American Society of Otolaryngologic Allergy, American Academy of Ophthalmology and Otolaryngology, Air Medics Society, Southern Railway Surgeons, and Memphis O and O Society.

During the Jan. 4 meeting Dr. Joseph McKinnon of Hattiesburg and Dr. Lamar Arrington of Meridian were named to serve as members of the executive committee.

The Board also passed resolutions expressing its appreciation and commendation for the contribution to the public health of Mississippi ren-

dered by Dr. W. T. Wilkins and Dr. R. B. Caldwell during their terms of office. Dr. Caldwell was first named to the Board of Health in 1944 and served as its president from 1952 through 1961. Dr. Wilkins served on the Board from 1957 through 1961.

Medical Correction Program Boosts Mississippi

"Let's Talk Mississippi" got a big boost in Atlanta recently at a six-state regional conference staged by the Children's Bureau.

Mississippi's unique Medical Correction Program was on review as an example of a school health service, available nowhere else in the nation.

By special invitation of the regional medical director of the Children's Bureau, Dr. N. C. Knight, medical director of the Mississippi School Health Service, described how each year more than 10,000 children are given a better chance for optimum health.

Credit for initiating the program goes to Dr. Knight, who was concerned about the large number of children with physical defects that went uncorrected from year to year—worsening all the time. He knew by experience something of the frustration of the teachers and local health officers and nurses who "found" these children, but had no provision to follow-through on needed medical treatment. For children with orthopedic and heart defects, there was aid from the Crippled Children's Service. For blind children, corrective surgery and glasses, when indicated, were available from the Division of the Blind. For children threatened with tuberculosis, there was the Preventorium for a limited number.

But for the majority of the state's children with numerous other physical defects that medical science could ameliorate, there was no existent program. Many of these children came from families not on the welfare rolls—from families termed as "medically indigent," because parents could provide the necessities of daily life but could not afford the expense of surgery, hospitalization, or medical treatment.

To do something about this situation, Dr. Knight proposed a plan to the state health officer whereby the state legislature would provide funds to be used for the correction of medical defects of children of medically indigent parents, when matched by local funds on a dollar for dollar basis. The plan was approved by the Mississippi State Medical Association and the Mississippi State Hospital Association. Funds were appropriated by the legislature in 1946 and the program has been in effect continuously since that time.

A "means test" is used to determine eligibility for aid. However, one of the noteworthy features of the Mississippi program is the encouragement given to parents to pay the local half of the cost of the correction.

The success of the program, Dr. Knight holds, has been due to the spirit of cooperation from lay groups, as well as from the medical profession and the hospitals. In every county in the state there has been active participation throughout the years. Monies for matching funds have come from many sources—county boards of supervisors, city officials, and civic groups, such as Lions, Kiwanis, Exchange, and PTA. In addition to financial aid, they have provided transportation for patients and other services requested by the local health department. Physicians, surgeons, and hospitals have given 100 per cent cooperation in the program. By furnishing services at reduced rates, they have enabled the value of the tax dollar to be greatly extended.

The improved health status of Mississippi children in recent years is attributable in a large measure to the Medical Correction Program. In 1948, two years after the program went into effect, Dr. Knight conducted a study of school children in 11 typical counties to get a picture of the health status of Mississippi school children. The findings revealed that in every 100 children examined, 64 physical defects needing correction were present. A similar study in 1958 revealed that the incidence of physical defects had been reduced about 61 per cent.

Dr. M. M. Powell, Sr. Honored for Medical Service

Dr. Minor Merritt Powell, Sr., of Coldwater, who is directly responsible for 115 years of medical service to Mississippians, received recognition for his contribution in December ceremonies.

Fifty years of medical practice have been accounted for by Dr. Powell himself, while his sons, Dr. John C. Powell of Senatobia, Dr. Minor Merritt Powell, Jr., and Dr. Albert D. Powell, both of Coldwater, have a combined total of 65 years of practice.

Dr. Powell, whose one regret is that none of his grandchildren plan to enter medicine, was awarded the Fifty Year Club pin and certificate

on Dec. 10. Dr. J. B. Rogers of Oxford, MSMA trustee, district 2, and Dr. M. E. Morrison, of Oxford, secretary of the North Mississippi Medical Society, made the presentation.

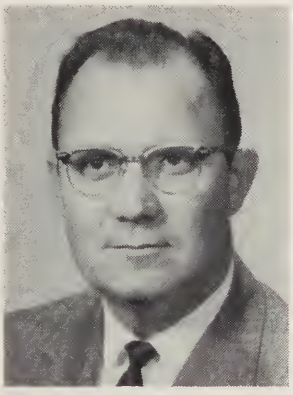
The 77-year-old general practitioner received his medical degree from the University of Louisville in Louisville, Ky., in 1911 and opened his practice in Independence, Miss. He moved to Coldwater shortly before the flu epidemic of 1918 and remembers it as an exhausting year. He was the only physician in Tate County who did not have the disease and so was kept going continuously to meet the demand for medical services.

Dr. Powell is an emeritus member of MSMA and a member of AMA.

Mississippi Surgeons Name Dr. Thornton President-elect

Dr. William L. Thornton of Meridian was named president-elect of the Mississippi Chapter, American College of Surgeons at the group's annual fall meeting. He will succeed Dr. Jack King of Jackson as president at the chapter's 1962 convention.

Dr. Thornton served as secretary of the East Mississippi Medical Society in 1957 and 1958 and is a member of the Mississippi State Medical Association, and the American Medical Association. He received his medical degree from the University of Pennsylvania in 1947 and interned at Parkland Hospital in Dallas, Texas. His surgical residency was completed at Parkland Hospital.



Dr. Thornton

Dr. King served as a vice president of MSMA during the 1960-61 association year and is serving as a member of the Committee on Occupational Health and the Committee on Exhibits for the 94th Annual Session. He received his medical degree from Harvard in 1947 and interned at Grady Memorial Hospital in Atlanta. He took his residency at Ochsner Foundation Hospital in New Orleans and at Grady Memorial Hospital.

Plans are now underway for the 1962 annual meeting of the Mississippi Chapter, ACS, to be held in the fall.

Speakers Announced For Arthritis Seminar

The University of Mississippi School of Medicine will offer its first Arthritis Seminar on Feb. 22.

Four guest speakers will cover various aspects of arthritis and rheumatic disease in the one-day session. They are Dr. Glenn Clark, associate professor of medicine at the University of Tennessee; Dr. Victor Pollak, associate professor of medicine, University of Illinois; Dr. John Vaughan, associate professor of medicine, University of Rochester, and Dr. Daniel Riordan, associate professor of clinical orthopedics at Tulane.

Dr. Frederic C. McDuffie, assistant professor of medicine at the University, is co-ordinator for the seminar, part of the School of Medicine's continuing series of postgraduate education programs.

The session will begin with registration in the School of Medicine Foyer at 8:30 a.m. At 9:00 a.m., Dr. Clark will discuss the use of steroids in arthritis, followed at 10:00 by Dr. Pollak, talking on renal lesion of lupus.

Dr. Vaughan's paper on the seriology of rheumatoid arthritis will conclude the morning session. At 1:45 p.m., Dr. Riordan will review the surgery of the arthritic hand.

The four guest speakers and Dr. Paul S. Derian, associate professor of surgery at the University of Mississippi, will comprise a panel for patient presentations at 3:30 p.m.

The Mississippi Chapter of the Arthritis and Rheumatism Foundation is co-operating in the seminar which is supported by an educational grant from Geigy Pharmaceuticals. There is no fee but advance registration is requested.

Attendance is approved for six hours of Category 1 postgraduate credit by the Mississippi Academy of General Practice.

MSMA Membership Climbs To 1,351 During 1961

MSMA membership increased to 1,351 during 1961 from the 1960 total of 1,317 according to a recently released report from the Membership Department at association headquarters.

Of this total, 1,166 were regular members and 110 emeritus members. Sixty-four members were in the exempt category including physicians suffering from illness or hardship, those engaged in mili-

tary service or a residency, and members in the scientific classification. There were 11 associate members.

As of Dec. 31, 1961, there were 1,723 white physicians located in Mississippi and 64 colored. Central Society remained the largest local group with 342, an increase of 18 from 1960. Seven counties reached 100 per cent of their renewable membership from 1960. These were Amite-Wilkinson, Claiborne, Clarksdale and Six Counties, Homochitto Valley, Pearl River, Tri-County, and West.

East Medical Society Sponsors Scientific Seminar

Staff members of the University of Mississippi School of Medicine conducted a scientific seminar on Dec. 14 in Meridian under the sponsorship of the East Mississippi Medical Society.

Speakers included Dr. James D. Hardy, professor of surgery, who spoke on "Complications of Atherosclerosis: Surgical Management"; Dr. J. Darrell Smith, assistant professor of pediatrics, who discussed "Management of Acute Glomerulonephritis of Childhood"; Dr. Lois M. Mosey, assistant professor of obstetrics and gynecology, who talked on "Hypertension in Pregnancy"; and Dr. Herbert Langford, associate professor of medicine, who discussed "Newer Aspects of Hypertension."

Dr. Robert Q. Marston, dean of the University of Mississippi School of Medicine, spoke at the evening banquet. Dr. M. L. Flynt, Jr., is president of the East Mississippi Medical Society.

AMA House Urges Expansion Of Recruitment Programs

At its Denver meeting in November, the AMA House of Delegates approved a resolution calling for further implementation of future physicians' clubs and medical explorer posts.

The resolution, introduced by the Illinois State Medical Society, pointed out that the American Medical Association has established a medical careers program to encourage scientifically talented and dedicated high school and college students to pursue careers in medicine by providing financial assistance through its honors and scholarship program.

It recommended that the constituent and component medical societies assist in the development of science clubs and fairs, medical explorer units and future physician clubs in their local school system.

The House urged that state and county societies expand their recruitment activities and suggested that they consult with the AMA Council on Medical Education and Hospitals for assistance.

Heart Association Issues Anticoagulant Guide

A new booklet to provide physicians with guiding principles and practical recommendations for the use of anticoagulant drugs has been issued by the American Heart Association.

Entitled "A Guide to Anticoagulant Therapy," the booklet contains material designed to aid the physician who has decided to institute anticoagulant therapy in making the most effective use of these drugs. It does not consider the indications for therapy or the merits of different agents in the prophylaxis or treatment of specific diseases.



"We don't use the x-ray for that, Mrs. Brown. You'll have to steam it open."

The two types of agents currently employed—heparin and coumarin-type compounds—are discussed with reference to their physiologic effects, administration, contraindications and appropriate antidotes. Fibrinolytic agents (either used alone or in combination with anticoagulants) are not included "because there has not been enough clinical experience to permit recommendations."

The publication emphasizes the importance of individualized treatment, careful clinical observation, and frequent reliable laboratory tests. In addition, many common problems of anticoagulant therapy are discussed in question and answer form. The booklet also contains several tables and selected references.

The guide originally appeared as an article in the July, 1961, issue of *Circulation,* one of three professional journals issued by the association. It was prepared for the organization's Committee on Professional Education by Dr. Benjamin Alexander and Dr. Stanford Wessler of Beth Israel Hospital, Boston.

Copies of the booklet may be obtained by physicians from the Mississippi Heart Association, 145 East Amite St., Jackson, Miss. or the American Heart Association, 44 East 23rd Street, New York 10, N. Y.

UMC Circuit Courses Set For Meridian and Centreville

The last sessions of the University of Mississippi School of Medicine's 1961-62 Circuit Courses will be held during February and March in Meridian and Centreville.

Meridian meetings will be March 1, 8, and 15 in the Matty Hersee Hospital starting at 2 p.m. Centreville meetings will be Feb. 28, March 7 and 14 at 5:00 p.m. in the Field Memorial Community Hospital.

The courses are planned by the School of Medicine with the cooperation of the Mississippi State Medical Association and the Mississippi Academy of General Practice which approves full attendance for 11 hours of Category 1 postgraduate credit. No registration fee will be charged since the courses are supported by an educational grant from E. R. Squibb and Sons.

Session 1 of the Central Circuit will include these papers: "Surgery of Atherosclerotic Complications" by Dr. Watts R. Webb; "Respiratory Resuscitation" by Dr. Marion A. Carnes, and "Eye Conditions in Multiple Injury Patients" by Dr. Samuel B. Johnson.

Papers scheduled for Session 2 are "Thyroid Disease" by Dr. Herbert G. Langford; "Problems in Clinical Electrocardiography" by Dr. Thomas M. Blake, and "The Placebo in Medicine and Surgery" by Dr. Floy J. Moore.

Session 3 papers will be "Diagnosis and Management of Carcinoma of the Cervix" by Dr. Michael Newton; "Abortions: Diagnosis and Treatment" by Dr. William B. Wiener; "Pulmonary Problems in Children" by Dr. Blair E. Batson, and "Allergic Problems in Infancy and Childhood" by Dr. Wilfred Q. Cole.

The Southern Circuit of the 1961-62 Circuit courses was held during January in Gulfport and Hattiesburg. The Northern Circuit was held in Tupelo and Greenwood during October and November.

Dr. Ewing Takes Forced Recess From MSMA Duties

One of MSMA's longtime statesmen, Dr. M. Q. Ewing of Amory, has been forced to take a recess from his committee and council work due to ill health.

Dr. Ewing fell and fractured the first and fourth lumbar vertebrae on Dec. 12, a few weeks before he was scheduled for major surgery. He is now in the Baptist Memorial Hospital in Memphis and is recovering rapidly from both injury and operation.

At the time of his illness, Dr. Ewing was serving as vice chairman of the Council on Medical Service and chairman of the Committee on Aging. He served as president of MSMA in 1953 and as a councilor from 1951-53.

Flashlight Used to Find Brain Defects in Babies

An ordinary flashlight is being used routinely to find brain defects in infants examined at Massachusetts General Hospital, Boston, according to Drs. Philip R. Dodge and Philip Porter.

The flashlight which illuminates the cranial cavity has aided the diagnosis of a variety of cerebral abnormalities, the two physicians wrote in the December *Archives of Neurology,* published by the American Medical Association. They urged wider application of the method, termed transillumination and employed as early as 1831 by Richard Bright with sunlight and candle.

In the newborn or very young infant, the authors said, transillumination may be the only definite way to find whether anything is amiss. In

addition, they said, the technique can be useful in following the course of a brain condition.

The authors said they used a two-battery flashlight with the glass lens removed and a soft rubber cup attached for contact with the baby's head. The examinations were done in a dark room, they said, and color photographs of the illuminated brain were taken with flashbulbs.

The technique was generally successful in all infants up to one year old although the color and thickness of hair and complexion of skin influenced the results, they said.

This simple technique "has a much wider application to neurologic diagnosis than is generally realized," they said, but it "must be employed routinely before its usefulness can be fully appreciated."

AMA Polls Deans On 1961 Medical Advances

The year 1961 was a period of steady progress in medical research and in clinical medicine, the men who direct the nation's medical education reported.

An American Medical Association poll of deans of medical schools brought reports of many advances in medical science on most of the major disease fronts during the year.

Some highlights—

- Rapidly expanding knowledge in medical genetics, so important that the time is approaching when many very serious human diseases may be eliminated entirely.
- New forward strides in the search for drugs that will cure or prevent cancer.
- Development and discovery of new pharmaceuticals, particularly the new live polio vaccine, the measles vaccine and synthetic penicillin.
- Important new knowledge about hepatitis which may eventually lead to a vaccine against the only remaining epidemic disease which is still increasing in the United States.
- Progress in application of electronics and computers to medicine, a further bringing together of machinery and equipment, skills and techniques, men, money and methods to the benefit of mankind.

The single research area most often mentioned by the deans responding to the survey was that of medical genetics.

The discovery of a relationship between chromosomal abnormalities and congenital defects was hailed as an advance of major importance in genetics.

In normal births the number of chromosomes are constant in each species. But, through improved techniques of identifying and counting the minute particles, it was learned that certain abnormal birth conditions involve an imbalance of chromosomes. An example is mongolism, which was shown to be a consequence of an extra "X" chromosome.

The genetic and physiologic implications of studies in genes and chromosomes are of tremendous significance, one of the deans wrote. As knowledge of man's genetic processes and their biochemistry increases, it should be possible to reduce the incidence of genetic diseases, including perhaps some kinds of cancer. Through counseling, some genetic defects could be avoided. The results of other defects can be treated. Through more knowledgeable handling of some of the conditions that cause defects, such as virus diseases and x-rays, others could be avoided.

A unifying concept regarding the cause of cancer emerged late in 1961: Cancer, no matter what the cause, is the result of a change in the chromosomal nucleic acid (DNA) of the affected cells.

Methods have been developed for the isolation of DNA from the cancer-inducing polyoma virus. The purified DNA, like the intact virus, will initiate the development of cancer in laboratory animals. There is a program now under way for labeling DNA with radioactive hydrogen so that the DNA may be traced as it penetrates cells.

For many years researchers have followed thousands of leads in the search for a drug or drugs that will affect the course of cancer once it attacks the human body. The basic cancer treatments still are surgery and x-ray. But notable progress was recorded in 1961 in the search for a drug.

The drug methotrexate was found to be effective in arresting some 50 per cent of cases of a highly malignant tumor found in women, choriocarcinoma. In one series of 63 women with choriocarcinoma, 30 of them lost all traces of their disease and on the last check-up had been well for periods up to five years.

This particular form of cancer is itself exceedingly rare and its cure means little in the overall cancer picture. However, the effectiveness of methotrexate represents a forward step in the search for chemical agents that will block cancer.

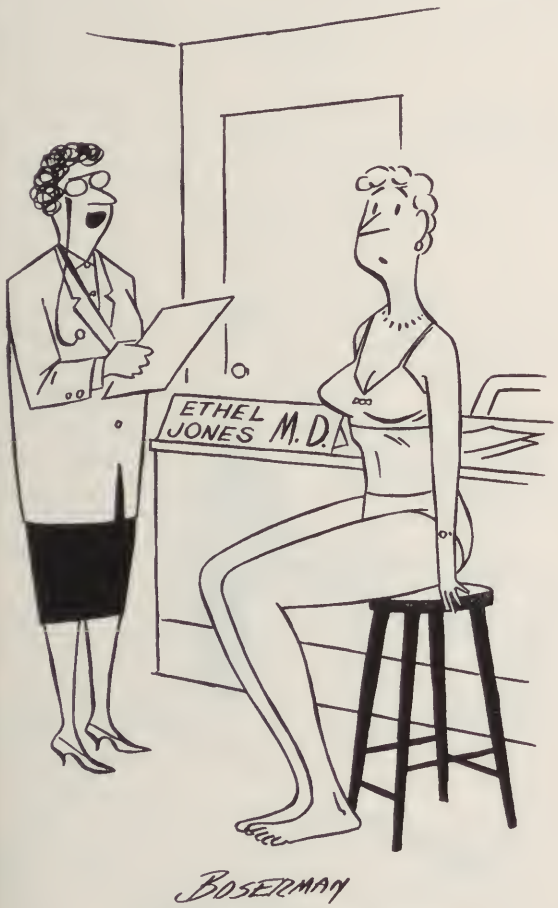
Other drugs undergoing tests include actinomycin D for kidney cancer in children, TEM,

used with x-ray for certain types of cancer of the eye and 5-fluorouracil for intestinal cancer (used on the late Speaker Sam Rayburn). Other drugs have helped reduce virulence of breast cancer and have helped prevent further spread of breast cancer after surgery.

The new live virus polio vaccine perfected by Dr. Albert B. Sabin was licensed against two of the three types of polio during the year. The Sabin vaccine against Types I and II polio is now being manufactured. The Type III vaccine still is awaiting governmental approval.

The polio vaccine was a subject of controversy during the year. One school of thought holds that only the live virus vaccine can finally eliminate polio as a threat. On the other hand are those who maintain that the killed virus vaccine perfected by Dr. Jonas Salk can do the job equally well.

Dr. Salk backed up his belief that his vaccine can wipe out the crippling disease in a scientific paper presented at the AMA's clinical meeting at Denver in late November. Going still further, Dr. Salk presented a basic concept for the future of a killed virus vaccine that could provide protection against scores of different disease-producing viruses in one massive dose.



Copyright, Mississippi State Medical Association

"Have you ever met my husband? He's the undertaker down the street."

A measles vaccine developed by Dr. John Enders and associates was successfully tested during the year. The vaccine now offers the definite possibility that within a few years measles could be eliminated from the United States as a threat to children. A vaccine against another of the so-called childhood diseases, mumps, also was undergoing tests in 1961.

In the area of hepatitis, which increased to some 70,000 cases in 1961 for the heaviest incidence year on record, Dr. Joseph Boggs at Northwestern University, working with a group of Detroit scientists, succeeded in proving that the hepatitis virus has been isolated. In tests conducted among volunteers at the Illinois State Penitentiary at Joliet, Dr. Boggs was able to produce immunity to hepatitis by giving convicts weakened doses of the hepatitis virus.

There still are many problems to be solved, but the work announced in 1961 points the way toward development of a vaccine to prevent hepatitis.

During 1961 the new applications of electronics to medicine moved forward so rapidly that the AMA found it important to include a special section on this topic at its November meeting, to bring practicing physicians up to date on the new tools available to them.

Much progress has been made by applying computer techniques to diagnose some forms of heart disease. Computers can now receive the electric signals generated by the heart and analyze them electronically to locate and estimate heart damage.

An automatic system for monitoring patients in the hospital was tested in 1961. Temperature, pulse, respiration, and blood pressure would be measured by machine and the report translated to the nurses' station at the end of the hall. A nurse could tell at a glance whether any of the patients under her charge were in need of personal attention.

A radioisotope scanner detects brain tumors. A radio pill broadcasts its findings as it moves down a patient's gastrointestinal tract. A miniature electrocardiograph, worn by the patient, records heart irregularities that a brief examination misses. Some 500 men and women are being kept alive today by a small electronic pacemaker that keeps their hearts beating regularly. Perhaps 100 of them have a transistorized pacemaker, no

larger than a pocket watch, planted inside their chests.

Successful use of external massage in restoring the heart beat was reported during the year and was demonstrated in a scientific exhibit at the AMA's annual meeting in New York City in June.

An immunization technique which shows promise of countering schistosomiasis, a disease believed to afflict more than 100 million persons in certain areas of the world, was undergoing refinement at the end of 1961.

Many of the deans responding to the AMA's survey listed a wide variety of gains in medical knowledge that have not been recorded here. Only the highlights of the year's major developments, plus a sampling of many of the lesser bits of new knowledge, are presented.

Geriatrics Society Offers $1300 in Essay Contest

Members of the Mississippi State Medical Association are invited to enter the National Geriatrics Society's first annual essay contest which offers $1300 in prizes.

According to Dr. Joseph B. Enos, society president, the contest subject is "Institutional Care of the Aged." First prize will be $500, second prize $300, third prize $200, and fourth, fifth, and sixth prizes $100.

Entries should be mailed to the office of the president, P. O. Box 2605, Niles, Calif. All papers are to be judged anonymously and the judges' decision are to be final. Submitted papers are to remain the property of the National Geriatrics Society.

Dr. Enos said the winners will be announced at the Ninth annual convention of the society to be held in Washington, D. C., April 30-May 3. Earned awards will be mailed directly to the winners.

Directory of Blood Transfusion Facilities to Be Published

Over 4,500 hospitals, Red Cross, and community blood banks are now being surveyed to determine and record their identities and relationship to transfusion services and blood banking. Specific data are being gathered to determine the number of units of human blood collected and transfused by each institution. This and other information will be published early in 1962 in a third edition of "Directory of Blood Transfusion Facilities and Services" by the Joint Blood Council.

The directory will also include information on technical and operating procedures, approvals, supervision, reciprocity exchange systems, tissue storage banks, and other pertinent data. It carries also a coded functional definition for each listed facility.

The two previous directories, published in 1958 and 1960, have met with marked success. Information useful to the hospitals, blood banks, medical libraries, federal medical agencies, and Civil Defense planning groups are used daily.

The Joint Blood Council is a nonprofit organization formed and supported by the American Association of Blood Banks, American Hospital Association, American Medical Association, American Red Cross, and the American Society of Clinical Pathologists. Its primary purpose is "to establish a national blood program in order to assure an adequate supply of blood and blood



Copyright 1961, Mississippi State Medical Association

"Well, it's sort *of a 'planned' diet . . . I've planned to start on it for some time."*

derivatives to the civilian and military population at all times of peace or emergency." The Council's directory service furnishes a basis for such a program by locating and identifying transfusion services and blood banks and recording their capabilities and dependencies.

All facilities collecting, processing, and using blood are requested to complete the directory data cards and return them immediately. No charge is made for the listing. The directory service has the support of the Council's member institutions and the federal medical services.

University Slates 'Social Science in Medicine' Lectures

The first in a series of five lectures on "Social Science in Medicine" was held Jan. 12 at the University of Mississippi School of Medicine.

Dr. Henry K. Beecher, professor of research in anesthesiology at Harvard University was the lead-off lecturer. He discussed the role of fear and anxiety in disease and death.

The postgraduate series, a pilot program offered for the first time this year, is designed to show the relationship between medicine and the behavorial sciences. Announcements were sent to physicians, social workers, mental health workers, and others in allied professions.

The lectures are being sponsored by the Department of Psychiatry at the University of Mississippi School of Medicine with the help of an education grant from Merck Sharp and Dohme. No tuition fee is being charged.

The other four lectures will be given in March, May, October, and January, 1963. The speakers scheduled are out-of-state experts who have distinguished themselves through their research and writings in their respective fields.

The co-director of the Suicide Prevention Center of Los Angeles, Dr. Edwin S. Shneidman, will talk about the psychology of suicide on March 16.

On May 4, the lecture will concern the effect of the changing times on the doctor-patient relationship. The speaker will be Dr. E. Gartly Jaco, co-editor-in-chief of the *Journal of Health and Human Behavior*.

Dr. O. Hobart Mowrer, research professor of psychology, University of Illinois, will speak on Oct. 12 on mental health and religion.

Each lecturer will speak on Friday at 1 p.m. in Room 5-A at the University School of Medicine to the general professional public. Senior medical students and staff members will hear the lecture on Thursday at 4 p.m. in Room 7-A.

Booklet Explaining Gynecology a Sell-out

A new booklet designed to help gynecologists explain their medical specialty to the public has met with immediate success.

A first printing of 10,000 copies was distributed to physicians who are fellows of the sponsoring American College of Obstetricians and Gynecologists. Bulk supplies of the booklet were offered to each physician on a self-liquidating cost basis.

Within six weeks, before the second printing of 150,000 copies had left the bindery, all of this supply had been sold out. Further orders require a third printing.

Physicians ordered the booklet in quantities of 20 to 1,000 copies each for distribution to their patients or through local women's clubs, letters explained.

"What Is a Gynecologist" is the first such booklet prepared by the American College of Obstetricians and Gynecologists in a new public relations program launched this past year. A second booklet for professional distribution regarding services and functions of the College is now being prepared.

College of Pathologists Sponsors Cholesterol Survey

MSMA members are invited to participate in the 1962 National Cholesterol Survey sponsored by the College of American Pathologists, according to a recent communication from Dr. Donald Nickerson, president of the College.

Wrote Dr. Nickerson, "The estimation of serum cholesterol, long used in the study of diabetes, nephritis, and disorders of the liver, has become of added importance in recent years because of the relation of cholesterol metabolism to atherosclerosis and heart disease. The need for a procedure which will give reproducible results from place to place and from year to year is imperative."

The purpose of the College's Standard Committee is to characterize a best cholesterol standard for universal use and to recommend an analytical procedure which may serve as a consistent point of reference. This national preliminary survey of serum cholesterol estimations is being organized to disclose the present status of this chemical procedure.

Inquiries should be addressed to Cholesterol Survey, College of American Pathologists, Prudential Plaza, Chicago 1, Illinois.

Mid-South Assembly Set For Feb. 13-16 in Memphis

The Mid-South Postgraduate Medical Assembly will meet for its 73rd Annual Meeting Feb. 13-16 in Memphis. Headquarters will be the Peabody Hotel.

One outstanding feature of the multi-faceted program will be a clinicopathologic conference conducted by Dr. E. E. Muirhead of Detroit, Mich., director of laboratories at Woman's Hospital and professor of pathology at Wayne University Medical School, and Dr. George G. Finney, Baltimore, Md., associate professor of surgery, Johns Hopkins University.

Other physician-speakers include Robert H. Kennedy, New York, director of the field program of the Committee on Trauma of the American College of Surgeons; Robert B. Greenblatt, Augusta, Ga., professor of endocrinology, Medical College of Georgia; Benjamin R. Gendel, Atlanta, Ga., professor of medicine, Emory University School of Medicine; L. E. January, Iowa City, Iowa, professor of medicine, College of Medicine, State University of Iowa; Edward H. Reinhard, St. Louis, professor of medicine, Washington University School of Medicine.

Also Ralph W. Gause, New York, associate professor, clinical and gynecological, Cornell Medical School; John W. Henderson, Rochester, Minn., associate professor of ophthalmology, Mayo Foundation, University of Minnesota Graduate School; Bruce Proctor, Detroit, Mich., associate clinical professor of otolaryngology, Wayne State University; Joseph A. Johnston, Detroit, Mich., pediatrician-in-chief, Henry Ford Hospital, Detroit, Mich.; John Cyril Peterson, Milwaukee, Wis., professor and chairman, Department of Pediatrics, Marquette University; Benjamin Felson, Cincinnati, Ohio, professor and director of radiology, University of Cincinnati; George G. Finney, Baltimore, Md., associate professor of surgery, Johns Hopkins University.

Also John T. Reynolds, Chicago, clinical professor of surgery, Illinois College of Medicine; Paul C. Bucy, Chicago, professor of surgery at Northwestern University; G. W. N. Eggers, Galveston, Texas, professor of orthopaedic surgery, orthopaedic surgeon-in-chief, Medical Branch Hospital, University of Texas; Walter W. Fischer, New York, associate professor of clinical surgery, New York University; Reed M. Nesbit, Ann Arbor, Mich., professor in charge of urology, University Hospital.

Dr. Lon E. Reed of Hot Springs, Ark., is president of the Assembly and Dr. Gilbert J. Levy of Memphis, Tenn., is president-elect. Dr. Moore Moore, Jr., of Memphis is secretary-treasurer.

Dr. Everett H. Crawford of Tylertown, Miss., is one of the vice presidents of the assembly. Other vice presidents are Dr. John P. Price, Jr., of Monticello, Ark.; Dr. J. Malcolm Aste of Memphis, and Dr. Gilbert M. Kinzer of Huntsville, Ala.

McComb Physician Heads Tri-County Medical Society

Dr. Verner S. Holmes of McComb was elected president of Tri-County Medical Society at the group's Dec. 19 meeting. He succeeds Dr. Moncure Dabney of Crystal Springs.

Dr. Aubrey V. Beacham of Magnolia was re-elected secretary of the 65-member society.

During the program Dr. Lawrence W. Long of Jackson, president of MSMA, and Dr. Everett Crawford of Tylertown, district trustee of MSMA, addressed the society.

'Cigarette Cough' Exists Write Philadelphia Physicians

There is such a thing as "cigarette cough," according to three Philadelphia physicians writing in the January *Archives of Environmental Health,* published by the American Medical Association.

"However, the similarity in cough patterns between cigar and pipe smokers suggests that tobacco smoke in general, rather than cigarette smoke alone, causes cough," Drs. Katharine R. Boucot, David A. Cooper, and William Weiss, Philadelphia, said.

Preliminary results of a study of chronic cough among 6,137 men 45 years of age or older also showed:

—The prevalence of cough among older male smokers was 31.5 per cent, compared with 13 per cent for the nonsmokers.

—Cough increased with increasing age to a rate of 28.6 per cent for nonsmokers and 39.4 per cent for smokers. Among men 45 to 54 years of age, only 9.9 per cent of nonsmokers coughed contrasted to 27.7 per cent of smokers.

—Cough rates increased with increasing amounts and duration of smoking for all smoking categories—cigarettes, cigars and pipes.

Among men who had smoked 20 to 39 years, the chronic cough rate was 27.9 per cent for smokers, twice the 13 per cent for nonsmokers, the researchers said. Chronic cough was even more prevalent among smokers of more than 40 years' duration, among whom cough was reported by 39.8 per cent, three times the rate for nonsmokers, they said. In this group, the rate of cough rose to 51.6 per cent among heavy cigarette smokers, they said.

In addition, cough increased with increasing degrees of smoking to a peak of 41.8 per cent among heavy cigarette smokers, they said. A heavy smoker was defined as one who smoked more than one pack a day.

The probability that chronic cough is a factor in the development of emphysema, a serious lung condition affecting an estimated 10 million persons in the United States, has enhanced the importance of exploring the association between smoking and cough, the physicians said.

"Obviously, there are factors in the causation of chronic cough other than tobacco smoking alone," they said. "The increase in cough with increasing age may be due to such factors as air pollution, inhalation of toxic materials at work, repeated infections, or the process of aging, per se, in which there seems to be a general drying of secretions, a general loss of tissue elasticity, and other changes which may favor cough."

Drs. Boucot and Weiss are affiliated with Woman's Medical College of Pennsylvania and Dr. Cooper with the University of Pennsylvania. Dr. Boucot also is chief editor of the *Archives of Environmental Health.*



"Somewhere along the line we've failed as parents."

Wilkinson-Amite Society Names 1962 Officers

The Wilkinson-Amite County Medical Society met Dec. 12, 1961, at the Field Memorial Community Hospital in Centreville.

Dr. Richard J. Field, Jr., of Centreville was inaugurated as president and Dr. Charles Catchings of Woodville was elected president-elect.

Guest speaker was Dr. George Martin of the Street Clinic in Vicksburg who spoke on "Carcinoma of the Thyroid."

Professional Congress Will Meet in Michigan

The Michigan Association of the Professions, an active organization representing more than 30,000 persons in the professions of architecture, dentistry, engineering, law, medicine, pharmacy and veterinary medicine, will hold its third annual congress of the professions at Michigan State University in East Lansing, Mich., Feb. 9 and 10.

Previous Congresses have attracted nation-wide interest and it is expected that professional leaders from all over the nation will attend this year's conference to participate in the session to consider the organizational structure of the American Association of the Professions, incorporated in 1960.

Programs will include name speakers and hearings on legislation, education, public relations and business services at which nationally-recognized experts in these fields will testify. All interested eligible professional persons have been invited to visit the sessions and members of out-of-state professional societies are urged to attend.

Further details about the Congress are available from MAP, 120 West Saginaw, East Lansing, Mich.

Tobacco Research Committee Assigns $800,000 for Grants

An additional $800,000 has been appropriated for new research grants in 1962 by the Tobacco Industry Research Committee, bringing the total to date to $5,450,000, according to Chairman Timothy V. Hartnett.

The TIRC was established in 1954 along with the Scientific Advisory Board which developed the research program. Mr. Hartnett said the Board

requested $800,000 for 1962 for new research grants. In its eight-years' work, the Board has made 172 grants and 180 renewal grants to scientists in 80 hospitals, medical schools and research institutions throughout the country. These grantees have published 218 papers on their studies in medical and scientific journals.

Mr. Hartnett said that in addition to continuing various studies on smoking and its effects, the Advisory Board has been placing greater emphasis on four important research areas: viruses and previous lung infections, bioassay and tissue culture, psychological and physiological research and lung physiology.

State Morbidity Reported Through Dec. 29, 1961

The Mississippi State Board of Health reports the following occurrence for morbidity for 1961 through the 52nd week of the year, ending Dec. 29. Case totals reported are shown opposite the disease condition.

Tuberculosis, pul.	654
Tuberculosis, O.F.	47
Salmonella food poisoning	9
Food poisoning, NOS	1
Gas gangrene	2
Salmonella infections	14
Brucellosis	7
Dysentery	
Amebic	44
Bacillary	54
Septicemia, NOS	1
Staphylococcus infection	51
Leptospirosis	2
Diphtheria	7
Typhoid fever	6
Paratyphoid fever	1
Meningococcus infection	
Meningitis	15
Meningococcemia	4
Meningitis, O.F.	109
Tularemia	10
Tetanus	15
Poliomyelitis	27
Encephalitis	
Infectious	51
Postvaccinal	1
Mononucleosis, infectious	107
Generalized vaccinia	1
Toxoplasmosis	3
Puerperal sepsis	2
Diarrhea of newborn	22
Hepatitis, infectious	1,517
Hepatitis, serum	2
Helminthic infections	
Taeniasis (drawf)	3
Hookworm	1,385
Ascariasis	362
Strongyloides	43
Blastomycosis	3
Cryptococcosis	1
Histoplasmosis	36
Streptococcus infection	
Scarlet fever	271
Strep throat	1,990
Rheumatic fever	5
Rheumatic heart	8
Pertussis	40
Measles	1,619
Chickenpox	904
Mumps	635
Influenza	1,113
Chancroid	16
Gonorrhea	5,810
Syphilis	
Early	274
Late	319

Conference on Handicapped Children Meets in Jackson

The Third Mississippi Conference on Handicapped Children met Jan. 24-25 in Jackson.

This conference is co-sponsored annually by the Mississippi Children's Code Commission and the Nemours Foundation for those interested and concerned directly or indirectly with handicapped children. It is coordinated by the Junior League of Jackson.

The Nemours Foundation of Wilmington, Del., is a charitable organization whose purpose is the aid of handicapped children in the South. This aid is given through grants and through the financing of conferences. Dr. A. R. Shands, medical director of the Alfred I. Dupont institute of the Nemours Foundation, will give opening and closing remarks at the conference.

Dr. Harvey F. Garrison, Jr., of Jackson is conference chairman and C. Seth Hudspeth of Jackson is chairman of the planning committee. Other members of the committee are Dr. T. H. Blake, Dr. J. R. Bane, Mrs. E. O. Allen, W. P. Bobo, T. B. Dungan, Mary Walker Mahon, and Carl S. Wilson, all of Jackson, and Dr. Donald T. Imrie of Vicksburg.

Polio Benefits Decline As Cases Hit Low Mark

In the first nine months of 1961, polio victims received more than $4.3 million in benefits from insurance companies under the provisions of special polio expense policies, according to the Health Insurance Institute.

The HII said polio benefit payments by insurance companies were slightly less than last year but that the incidence of polio was sharply down from 1960.

Through Sept. 30 of this year, persons protected by polio expense policies received an estimated $4,301,000 in benefits from insurance companies, a decrease of 6 per cent from the $4,577,000 in polio benefits paid in the same 1960 period.

However, Public Health Service figures show that there were 915 reported cases of polio in the United States in the first nine months of 1961, which includes the peak summer polio months. This was a decrease of 60 per cent from the 2,290 cases of polio reported in the first three-quarters of last year, which ended up being the lowest year for polio since 1938.

The HII said the fact that benefits did not decline as rapidly as the polio incidence illustrates the cost of long-term recuperative and treatment needs involved in the illness. The Institute also pointed out that the polio benefit figures were limited to payments made under polio expense policies and did not include the benefits to polio victims under other types of health insurance policies.

This year appears certain to be the lowest for polio incidence since 1915. The highest year was 1952 when nearly 58,000 cases were reported, but there has been a decline since the Salk vaccination programs were initiated in 1955.

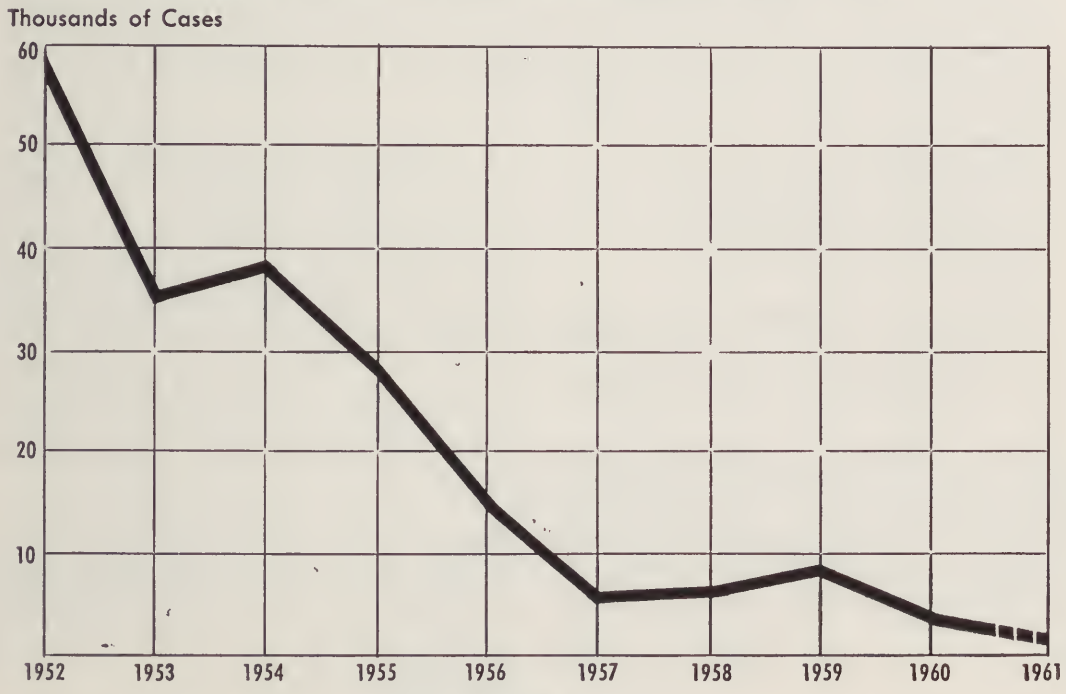
In all of 1960, there were 3,190 polio cases, only 6 per cent of the 1952 total, and it was the lowest polio year since the Salk programs. The final figures for this year will probably be lower.

Back in 1915, there were 1,639 polio cases and the lowest year since then was 1938 with 1,705 cases.

The 915 polio cases reported through Sept. 30 of this year were broken down into 589 paralytic cases, 217 nonparalytic and 109 listed as unspecified. Of the 2,290 polio victims in the first nine months of 1960 some 1,573 were paralytic cases, 490 were nonparalytic and 227 were unspecified.

In a typical polio expense policy, an adult for an annual premium of $3 can provide himself with up to $5,000 in medical benefits, and give his children the same coverage for $2 a child.

NUMBER OF POLIO CASES IN THE UNITED STATES BY YEAR



SOURCE: U.S. PUBLIC HEALTH SERVICE

Saunders Announces Recent Publications

W. B. SAUNDERS COMPANY features the following recent books in their full page advertisement appearing elsewhere in this issue:

FONTANA and EDWARDS—CONGENITAL CARDIAC DISORDERS, a vital statistical study to aid you in a better understanding of malformations of the heart.

WILLIAMS—Textbook of ENDOCRINOLOGY, a definitive source emphasizing the effects of endocrine changes on body metabolism.

1962 CURRENT THERAPY, today's best treatments—ranging from external cardiac massage for cardiac arrest through current use of antibiotics in treating bacterial infections.

IBM To Make Interest-free 'Shelter Loans' To Employees

The International Business Machines Corporation has announced that it will make interest-free loans up to $1,000 to its U. S. employees to build family fallout shelters. The loans may be repaid over a three-year period by payroll deductions.

In making the announcement, Thomas J. Watson, Jr., board chairman of the corporation, said that in addition to the loan plan, IBM is making quantity purchases of radiation measuring devices, survival food kits, and other shelter equipment and supplies which may not be readily available locally. These supplies will be sold to employees at the company's purchase price.

Fourth World Cardiology Congress Invites Papers

Abstracts of papers to be presented by U. S. residents at the Fourth World Congress of Cardiology in Mexico City, Oct. 7-13, must be submitted through the American Heart Association for screening not later than March 15, 1962.

Forms for submitting abstracts may be obtained from Dr. Frederick J. Lewy, Associate Medical Director, American Heart Association, 44 East 23rd Street, New York 10, N. Y.

NEW MEMBERS

The following physicians have been elected to membership by their respective component medical societies in the Mississippi State Medical Association and the American Medical Association:

BATES, JOHN GILBERT, Mendenhall. Born Simpson County, Miss., Jan. 25, 1934; M.D., Tulane University School of Medicine, New Orleans, La., 1960; interned Mississippi Baptist Hospital, Jackson; elected Oct. 3, 1961, by Central Medical Society.

CLEMENT, WILLIAM RODNEY, Pontotoc. Born Pontotoc, Miss., July 28, 1932; M.D., Tulane University School of Medicine, New Orleans, La., 1957; interned Charity Hospital, New Orleans, La.; member of the American Medical Association; U. S. Air Force, three years; elected Dec. 12, 1961, by Northeast Mississippi Medical Society.

KALEY, JACK STRAUD, Tupelo. Born Bremen, Ga., Aug. 4, 1920; M.D., Vanderbilt University School of Medicine, Nashville, Tenn., 1946; interned State University of Iowa Hospitals, Iowa City; four year general surgery residency, State University of Iowa Hospitals, Iowa City; member of the American Medical Association; elected Dec. 12, 1961, by Northeast Mississippi Medical Society.

MARSTON, ROBERT QUARLES, Jackson. Born Toano, Va., Feb. 12, 1923; M.D., Medical College of Virginia, Richmond, 1947; interned Johns Hopkins Hospital, Baltimore, Md.; residencies, Vanderbilt University School of Medicine, Nashville, Tenn., and Medical College of Virginia, Richmond; member of the American Medical Association, Richmond Academy of Medicine, American Association for the Advancement of Science, and the Society for Experimental Biology and Medicine; first lieutenant U. S. Army, two years; elected Nov. 7, 1961, by Central Medical Society.

STOKES, JACK AVERY, Pontotoc. Born Lincoln County, Miss., Feb. 10, 1931; M.D., University of Mississippi School of Medicine, Jackson, 1960; interned University of Mississippi School of Medicine, Jackson; elected Dec. 12, 1961, by Northeast Mississippi Medical Society.



PRO-BANTHĪNE P.A.®

(BRAND OF PROPANTHELINE BROMIDE)

PROLONGED-ACTING TABLETS—30 mg.

Effective • Convenient • Sustained Action

PRO-BANTHĪNE®, the leading anticholinergic, is now available in a distinctive prolonged-acting dosage form.

The prolonged action of new PRO-BANTHĪNE P.A. is regulated by simple physical solubility. Each PRO-BANTHĪNE P.A. tablet releases about half of its 30 mg. promptly to establish the usual therapeutic dosage level. The remainder is released at a rate designed to compensate for the metabolic inactivation of earlier increments.

This regulated therapeutic continuity maintains the dependable anticholinergic activity of PRO-BANTHĪNE all day and all night with only two tablets daily in most patients.

New PRO-BANTHĪNE P.A. will be of particular benefit in controlling acid secretion, pain and discomfort both day and night in ulcer patients and in inhibiting excess acidity and motility in patients with peptic ulcer, gastritis, pylorospasm, biliary dyskinesia and functional gastrointestinal disorders.

Suggested Adult Dosage: One tablet at bedtime and one in the morning, supplemented, if necessary, by additional tablets of PRO-BANTHĪNE P.A. or standard PRO-BANTHĪNE to meet individual requirements.

G. D. SEARLE & CO.
CHICAGO 80, ILLINOIS
Research in the Service of Medicine



TRIPLE SULFA THERAPY is safe at levels of pH 5.5 or lower where the possibility of crystalluria would be greatest.

TRI-AZO-MUL
TRI-AZO-TAB

TRI-AZO-MUL

Each 100 cc contains:

Sulfadiazine ..... 3.381 gm. (Microcrystalline)
Sulfamerazine ..... 3.381 gm. (Microcrystalline)
Sulfamethazine ..... 3.381 gm. (Microcrystalline)

In a palatable, stable emulsion pleasantly flavored with True Raspberry Flavor. Each average teaspoonful (80 min.) represents .5 gm. (7.7 grs.) of three combined sulfa drugs in suspension. Supplied in pint bottles only.

CONTRAINDICATIONS: Sulfonamides are potent drugs, and may cause toxic reactions. Sulfonamides, therefore, should be given only under constant supervision of a Physician.

TRI-AZO-TAB

Each tablet represents:

Sulfadiazine ....0.166 gm. (2.57 gr.)
Sulfamerazine ..0.166 gm. (2.57 gr.)
Sulfamethazine .0.166 gm. (2.57 gr.)

Available in White or Pink colored tablets in bottles of 100, 500 or 1,000.

TRI-AZO-MUL (citrated) offers the same formula as TRI-AZO-MUL (plain) with sodium citrate (17.5 gm.).

IN OUR 61ST YEAR

FTP **First Texas** *Pharmaceuticals, Inc.*
DALLAS

Another Established Need Product . . . .

Serving the physician's needs since 1901



once again, an active hand in "doing"–

PABALATE®

mutually potentiating nonsteroid antirheumatics

"superior to aspirin"[2] and with a "higher 'therapeutic index'"[1]

In each yellow enteric-coated PABALATE *tablet:*

Sodium salicylate (5 gr.) 0.3 Gm.
Sodium para-aminobenzoate (5 gr.) 0.3 Gm.
Ascorbic acid.....50.0 mg.

When sodium should be avoided—

PABALATE®-SODIUM FREE

In each pink enteric-coated PABALATE-SODIUM FREE *tablet:*

Same formula as PABALATE, with sodium salts replaced by potassium salts.

When conservative steroid therapy is indicated—

PABALATE®-HC

Pabalate with Hydrocortisone

In each light blue enteric-coated PABALATE-HC *tablet:*

Same formula as PABALATE-SODIUM FREE, plus hydrocortisone (alcohol) . . . 2.5 mg.

1. Barden, F. W., et al.: J. Maine M. A. 46:99, 1955.
2. Ford, R. A., and Blanchard, K.: Journal-Lancet 78:185, 1958.

Making today's medicines with integrity...seeking tomorrow's with persistence.

A. H. ROBINS COMPANY, INC., RICHMOND 20, VIRGINIA

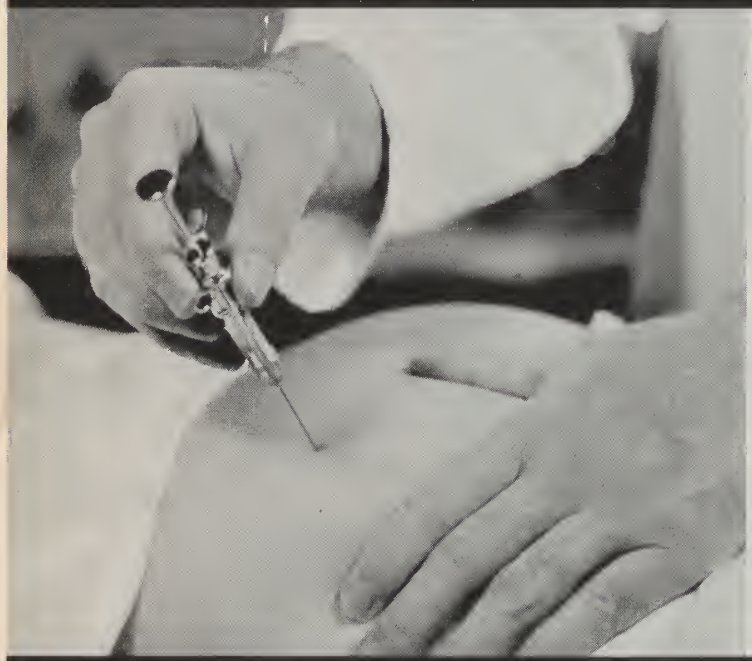
In oral penicillin therapy

COMPOCILLIN-VK

offers the speed, the certainty,

the effectiveness

of this...



with the safety

and the convenience

of this...



IN ORAL PENICILLIN THERAPY

COMPOCILLIN®-VK

POTASSIUM PENICILLIN V

BECAUSE potassium penicillin V (Compocillin-VK) offers excellent absorption[1,2,3,4]—fast, predictable levels of antibacterial activity enter the blood stream and quickly reach the site of infection. *Absorption takes place high in the digestive tract and is virtually unaffected by gastric media.*

Antibacterial levels are so predictable that, in many cases, *Compocillin-VK may be prescribed in place of injectable penicillin.* This is especially appreciated by younger patients and—as you know—oral administration is considered far safer than injectable.

Compocillin-VK is well tolerated and may be used in treating mild, severe, and in high dosage ranges, even critical cases involving penicillin-sensitive organisms. It comes in stable, palatable forms for every patient—every age.

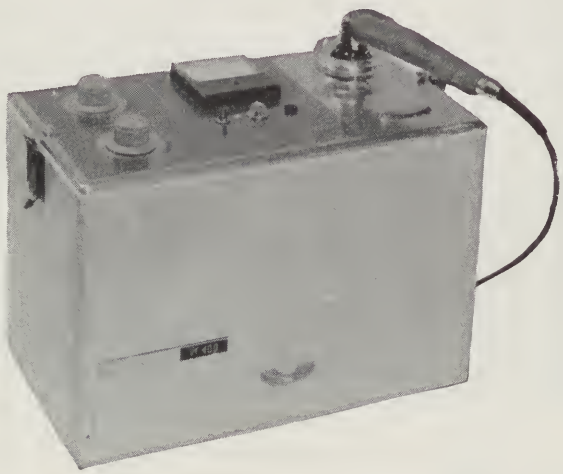
There are tiny, easy-to-swallow Filmtab® tablets—125 mg. and 250 mg. (200,000 units and 400,000 units), a tasty, cherry-flavored suspension (each 5-ml. teaspoonful contains 125 mg.) and two combinations (Filmtab and suspension) with the triple sulfas. Depending on severity of infection, dosage for Compocillin-VK is usually 125 mg. or 250 mg. three times a day. Won't you try Compocillin-VK?

1. R. Lamb and E. S. Maclean, Penicillin V—A Clinical Assessment After One Year, *Brit. M. J.*, July 27, 1957, p. 191-193. 2. J. I. Burn, M. P. Curwen, R. G. Huntsman and R. A. Shooter, A Trial of Penicillin V, *Brit. M. J.*, July 27, 1957, p. 193. 3. J. Macleod, Current Therapeutics, *The Practitioner*, 178:486, April, 1957. 4. W. J. Martin, D. R. Nichols and F. R. Heilman, Observations on Clinical Use of Phenoxymethyl Penicillin (Penicillin V), *J.A.M.A.*, p. 928, March 17, 1956.

ABBOTT

®FILMTAB—FILM-SEALED TABLETS, ABBOTT.
110261

Burdick

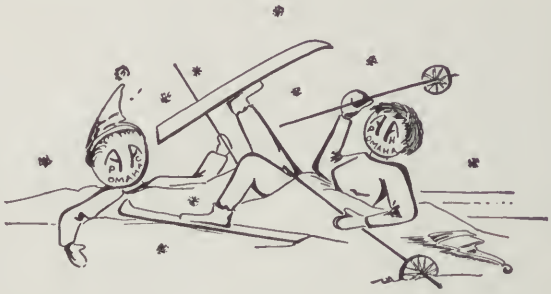


Choose the Burdick UT-400 Pulsed Ultrasound Unit for more *effective* treatment of musculo-skeletal dysfunctions.

Write us for descriptive literature and prices.

We will be glad to demonstrate the unit in your office at a time convenient to you.

KAY SURGICAL INC.
663 North State St. • Jackson, Miss.



Protection Against Loss of Income From Accident and Sickness as Well as Hospital Expense Benefits for You and All Your Eligible Dependents.

ALL PREMIUMS COME FROM PHYSICIANS SURGEONS DENTISTS ALL BENEFITS GO TO

PHYSICIANS CASUALTY & HEALTH ASSOCIATIONS
OMAHA 31, NEBRASKA
Since 1902

Handsome Professional Appointment Book sent to you FREE upon request.



HILL CREST SANITARIUM
Established in 1925
FOR NERVOUS AND MENTAL DISEASES AND ADDICTION PROBLEMS

Out-Patient Clinic and Offices

James A. Becton, M.D.
P. O. Box 2896, Woodlawn Station, Birmingham 6, Ala.

James Keen Ward, M.D.
Phone 595-1151 and 595-1152

Continuing to grow in clinical stature

Terramycin®

BRAND OF OXYTETRACYCLINE



Continuing to grow in clinical stature

Recent medical literature[1-27]—adding to an already massive bibliography—continues to document the effectiveness of well-tolerated Terramycin in respiratory and other infections.

Recent bibliography: 1. A.M.A. Council on Drugs, New and Nonofficial Drugs 1961, Philadelphia, Lippincott, 1961, pp. 142-147. **2.** Beckman, H.: The Year Book of Drug Therapy, Chicago, Yr. Bk. Pub., 1961, p. 271. **3.** Eastman, N. J., and Hellman, L. M.: Williams Obstetrics, ed. 12, New York, Appleton-Century-Crofts, 1961, pp. 845-1035. **4.** Keefer, C. S., in Modell, W.: Drugs of Choice 1960-1961, St. Louis, Mosby, 1960, pp. 141, 146, 147. **5.** Huang, N. N.: J. Pediat. 59:512, 1961. **6.** Smith, R. C. F.: Brit. J. Clin. Practice 15:345, 1961. **7.** Asay, L. D., and Koch, R.: New England J. Med. 262:1062, 1960. **8.** Berry, D. G., et al.: Lancet 1:137, 1960. **9.** Osol, A., et al.: The Dispensatory of the United States of America, ed. 25, Philadelphia, Lippincott, 1960, pp. 953, 1556. **10.** Adams, A. R. D.: Brit. M. J. 1:1639, 1960. **11.** Jung, R. C., and Carrera, G. M.: Dis. Colon & Rectum 3:313, 1960. **12.** De Lamater, J. N.: Am. J. Gastroenterol. 34:130, 1960. **13.** Stewart, W. H., et al., in Kelley, V. C.: Brenneman-McQuarrie-Kelley Practice of Pediatrics, Maryland, Prior, 1960, vol. II, chap. 5, p. 19. **14.** Wellman, W. E., and Herrell, W. E., in Kelley, V. C.: Brenneman-McQuarrie-Kelley Practice of Pediatrics, Maryland, Prior, 1960, vol. I, chap. 44, p. 13. **15.** Wenckert, A., and Robertson, B.: Acta chir. scandinav. 120:79, 1960. **16.** Alstead, S.: Dilling's Clinical Pharmacology, ed. 20, London, Cassell, 1960, p. 462. **17.** Grover, F. W.: Texas J. Med. 57:355, 1961. **18.** Gardiner, W. P., and Gomila, R. R., Jr.: Scientific Exhibit, Venereal Disease Seminar, U.S. Public Health Service, Feb. 28-Mar. 3, 1961. **19.** Jacques, A. A., and Fuchs, V. H.: J. Louisiana M. Soc. 113:200, 1961. **20.** Nathan, L. A.: Scientific Exhibit, 15th Clinical Meet., A.M.A., Denver, Col., Nov. 26-30, 1961. **21.** Ullman, A.: Delaware M. J. 32:97, 1960. **22.** Lamphier, T. A.: Scientific Exhibit, New York State M. Soc. Meet., New York, May 7-13, 1960. **23.** Freier, A.: Paper presented at Michigan Soc. Obst. & Gynec., Detroit, May 3, 1961. **24.** Logan, K. M.: Scientific Exhibit, Ann. Meet., Ohio Acad. Gen. Practice, Cincinnati, Sept. 13-14, 1961. **25.** Altemeier, W. A., and Wulsin, J. H. (A.M.A. Council on Drugs Report): J.A.M.A. 173:527, 1960. **26.** Krol, W. J.: J. Abdom. Surg. 3:78, 1961. **27.** Potempa, J.: Med. Klin. 56:352, 1961.

In Brief

The dependability of Terramycin in daily practice is based on its broad range of antimicrobial effectiveness, excellent toleration, and low order of toxicity. As with other broad-spectrum antibiotics, overgrowth of nonsusceptible organisms may develop. If this occurs, discontinue the medication and institute appropriate specific therapy as indicated by susceptibility testing. Glossitis and allergic reactions to Terramycin are rare. Aluminum hydroxide gel may decrease antibiotic absorption and is contraindicated. For complete dosage, administration, and precaution information, read package insert before using.

More detailed professional information available on request.

Terramycin®

OXYTETRACYCLINE WITH GLUCOSAMINE

CAPSULES

250 mg. and 125 mg. per capsule

Science for the world's well-being® Pfizer PFIZER LABORATORIES Division, Chas. Pfizer & Co., Inc. New York 17, N.Y.



"cramps" don't cramp her style...

when you prescribe

Trancoprin®

Aspirin.....(5 grains) 300 mg.
Trancopal® (brand of chlormezanone).....50 mg.

Trancoprin is more than a simple analgesic: It deals with cramping pains in three ways. Besides dimming pain perception, Trancoprin, through its tranquilizing action, reduces anxiety and raises the tolerance for discomfort. And, against the spasm caused by pain which, in turn, produces more pain, Trancoprin exerts its skeletal muscle relaxant action.

Trancoprin is exceptionally safe to use: Fewer than two and a half per cent of patients can be expected to have any side effects, and these are of a minor nature.

Available in bottles of 100 tablets. The usual dosage in dysmenorrhea is 2 tablets 3 or 4 times daily.

Winthrop LABORATORIES, New York 18, N.Y.

1602M

MEETINGS

NATIONAL AND REGIONAL

American Medical Association, June 24-28, 1962, Chicago, Ill. F. J. L. Blasingame, Executive Vice President, 535 N. Dearborn St., Chicago 10, Ill.

American Academy of General Practice, April 6-13, 1962, Las Vegas, Nev. Mr. Mac F. Cahal, Executive Director, Volker Blvd., at Brookside, Kansas City 12, Mo.

Mid-South Postgraduate Medical Assembly, Feb. 13-16, 1962, Memphis, Tenn. Leslie H. Adams, Executive Director, 774 Adams Ave., Memphis 5, Tenn.

American College of Surgeons, Sectional Meeting, March 26-28, 1962, Memphis, Tenn. William E. Adams, 40 E. Erie St., Chicago 11, Secretary.

New Orleans Graduate Medical Assembly, March 12-15, 1962, New Orleans, La. Mannie D. Paine, Jr., 1430 Tulane Ave., Room 105, New Orleans 12, Secretary.

STATE AND LOCAL

Mississippi State Medical Association, May 8-10, 1962, Jackson. Mr. Rowland B. Kennedy, Executive Secretary, 735 Riverside Drive, Jackson.

Amite-Wilkinson Counties Medical Society, First Tuesday March, June, September, December. S. E. Field, Centreville, Secretary.

Central Medical Society, First Tuesday Monthly, 6:30 p.m., Robert E. Lee Hotel, Jackson. George E. Gillespie, 514-A East Woodrow Wilson Drive, Jackson, Secretary.

Claiborne County Medical Society. D. M. Segrest, Port Gibson, Secretary.

Clarksdale and Six Counties Medical Society, Second Wednesday March and November, 2:00 p.m., Clarksdale. Whitman B. Johnson, Jr., 645 Evelyn Ave., Clarksdale, Secretary.

Coast Counties Medical Society, First Wednesday March, June, September, and November. Charles N. Floyd, 1412-23rd Ave., Gulfport, Secretary.

Delta Medical Society, Second Wednesday April and October. Howard A. Nelson, 308 Fulton St., Greenwood, Secretary.

DeSoto County Medical Society, Second Thursday January, April, July, and October, 1:00 p.m., Hernando Motel Cafe, Hernando. L. L. Minor, Route 9, Memphis 9, Tenn., Secretary.

East Mississippi Medical Society, First Tuesday February, April, June, August, October, and December. Hugh S. Rayner, Jr., 1216-21st Ave., Meridian, Secretary.

Homochitto Valley Medical Society, Fourth Tuesday Monthly, 7:30 p.m., Natchez Country Club, Natchez. W. T. Colbert, Natchez General Hospital, Natchez, Secretary.

North Central District Medical Society, Second Wednesday March and September. Robert B. Townes, Jr., 1196 Mound St., Grenada, Secretary.

Northeast Mississippi Medical Society, Second Tuesday March, June, September, and December, Tupelo. Thomas W. Wesson, 421 Main St., Tupelo, Secretary.

North Mississippi Medical Society, First Thursday January, April, and October, Oxford. Marcus E. Morrison, 512 Van Buren Ave., Oxford, Secretary.

Pearl River County Medical Society, Second Monday March, June, September, and December. Samuel O. Massey, Jr., 220 E. Canal St., Picayune, Secretary.

South Mississippi Medical Society, Second Thursday March, June, September, and December. Thomas F. Puckett, 715 Arledge St., Hattiesburg, Secretary.

Tri-County Medical Society, Second Tuesday March, June, September, and December. A. V. Beacham, Magnolia, Secretary.

West Mississippi Medical Society, Second Tuesday January, April, July, and October, 7:00 p.m., Old Southern Tea Room, Vicksburg. Tom H. Mitchell, The Street Clinic, Vicksburg, Secretary.



The problem of dieting is simpler when there's food like this!

How to help your patient stick to a low fat-cholesterol diet

The secret ingredient in a successful diet is acceptance. What these dishes lack in fat, they more than make up in their great appetite appeal. Skewered lamb kabobs, for instance, make a marvelous "meal on a stick." Even ordinary hamburger takes on new dimensions when onion or pickle slices are sandwiched between two thin patties. When it comes to salads, cottage cheese thinned with lemon juice makes a satisfying fat-free dressing. And to any low-fat-dieter's taste is angelfood cake with fruit and "whipped cream" made with skim milk powder.



A glass of beer can add zest to a patient's diet

Fat: 0
calories 104/8 oz. glass
(Average of American Beers)

United States Brewers Association, Inc.

For reprints of this and 11 other diet menus, write us at 535 Fifth Avenue, N.Y. 17, N.Y.



Can we measure the patient's comfort?

The physician can measure the basal metabolic rate by means of oxygen consumption. But he has no instrument—no objective test—for measuring comfort.

For this, he must depend upon his own powers of observation and the patient's own description of how he feels.

Because these are, admittedly, subjective criteria, the validity of results hinges entirely on the experience and objectivity of the investigators involved.

Such well-qualified clinicians have reported that a new corticosteroid developed in the research laboratories of Upjohn actually raises the level of relief obtainable with this type of therapy.

This difference cannot be "proved." It must be seen. And the only practical way for you to do this is to evaluate this new drug critically in your own practice. Please do, at your first opportunity. We are confident that you will be glad you did.

The new corticosteroid from Upjohn research

Alphadrol®

Each tablet contains Alphadrol (fluprednisolone) 0.75 mg. or 1.5 mg.
Supplied in bottles of 25 and 100.

The anti-inflammatory activity of Alphadrol is comparable to the best effects obtained in current practice. Results obtained with Alphadrol have been such as to warrant classifying it among the most efficient steroids now available.

More than twice as potent as prednisolone, Alphadrol exhibits no new or bizarre side effects. Salt retention, edema or hypertension, potassium loss, anorexia, muscle weakness or muscle wasting, excessive appetite, abdominal cramping, or increased abdominal girth have not been a problem.

Indications and effects

The benefits of Alphadrol (anti-inflammatory, antiallergic, antirheumatic, antileukemic, antihemolytic) are indicated in acute rheumatic carditis, rheumatoid arthritis, asthma, hay fever and allergic disorders, dermatoses, blood dyscrasias, and ocular inflammatory disease involving the posterior segment.

Precautions and contraindications

Patients on Alphadrol will usually experience dramatic relief without developing such possible steroid side effects as gastrointestinal intolerance, weight gain or weight loss, edema, hypertension, acne or emotional imbalance.

As in all corticotherapy, however, there are certain precautions to be observed. The presence of diabetes, osteoporosis, chronic psychotic reactions, predisposition to thrombophlebitis, hypertension, congestive heart failure, renal insufficiency, or active tuberculosis necessitates careful control in the use of steroids. Like all corticosteroids, Alphadrol is contraindicated in patients with arrested tuberculosis, peptic ulcer, acute psychoses, Cushing's syndrome, herpes simplex keratitis, vaccinia, or varicella.

Copyright 1962, The Upjohn Company
Trademark, Reg. U.S. Pat. Off.
February, 1962

The Upjohn Company
Kalamazoo, Michigan

Upjohn

Theragran®

SQUIBB VITAMINS FOR THERAPY

For your patients with infections or other illnes
who need therapeutic vitamin support. Ea
Theragran supplies the essential vitamins in tr
therapeutic amounts:

Vitamin A	25,000 U.S.P. U
Vitamin D	1,000 U.S.P. U
Thiamine Mononitrate	10
Riboflavin	10
Niacinamide	100
Vitamin C	200
Pyridoxine Hydrochloride	5
Calcium Pantothenate	20
Vitamin B_{12}	5 m

SQUIBB *Squibb Quality—the Priceless Ingredient*

'Theragran'® is a Squibb trademark

"nutrition...present as a modifying or complicating factor in nearly every illness or disease state"[1]

1. Youmans, J. B.: Am. J. Med. 25:659 (Nov.) 1958

rdiac diseases "Who can say, for example, whether the patient chronically with myocardial failure may not have a poorer myocardium because of a moderate iency in the vitamin B-complex? Something is known of the relationship of vitamin the intercellular ground substance and repair of tissues. One may speculate upon effects of a deficiency of this vitamin, short of scurvy, upon the tissues in chronic se."[2] 2. Kampmeier, R. H.: Am. J. Med. 25:662 (Nov.) 1958.

hritis "It is our practice to prescribe a multiple vitamin preparation to patients rheumatoid arthritis simply to insure nutritional adequacy . . ."[3]
ndez-Herlihy, L: Lahey Clinic Bull. 11:12 (July-Sept.) 1958.

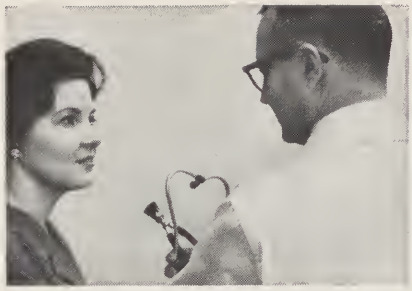
estive diseases Symptoms attributable to B-vitamin deficiency are commonly observed in patients on peptic ulcer diets.[4] Daily administration of therapeutic mins to patients with hepatitis and cirrhosis is recommended by the National arch Council.[5] 4. Sebrell, W. H.: Am. J. Med. 25:673 (Nov.) 1958. 5. Pollack, H., and Halpern, S. L.: Therapeutic Nutrition, National Academy of Sciences and National Research Council, Washington, D. C., 1952, p. 57.

generative diseases "Studies by Wexberg, Jolliffe and others have indicated that many of the symptoms attributed in the past to senility or to cerebral arteriosclerosis seem to respond with remarkable speed to the administration of vitamins, particularly niacin and ascorbic acid. These facts indicate that the vitamin reserve of persons is lowered, even to the danger point, more than is the case in the average rican adult."[6] 6. Overholser, W., and Fong, T.C.C. In Stieglitz, E. J.: Geriatric Medicine, 3rd edition, J. B. Lippincott, Philadelphia, 1954, p. 264.

ectious diseases Infections cause a lowering of ascorbic acid levels in the na; and the absorption of this vitamin is reduced in diarrheal states.[7] 7. Goldsmith, G A.: ce on Vitamin C. The New York Academy of Sciences, New York City, Oct. 7 and 8, 1960. Reported in: Medical Science 8:772 (Dec.10) 1960.

betes Diabetics, like all patients on restricted diets, require an extra source tamins.[8] "Rigidly limiting the bread intake of the diabetic patient automatically nates a large amount of thiamin from the diet. . . . There is some evidence of ference with normal riboflavin utilization during catabolic episodes."[9]
n G. G.: Diseases of Metabolism 4th edition W. B. Saunders, Philadelphia, 1959, p. 812. 9. Pollack, H.: Am. J. Med. 25:708 (Nov.) 1958.

ULL INFORMATION SEE YOUR SQUIBB PRODUCT REFERENCE OR PRODUCT BRIEF.



SUCCESSFUL FAMILY PLANNING...BASED ON YOUR COUNSEL AND LANESTA® GEL

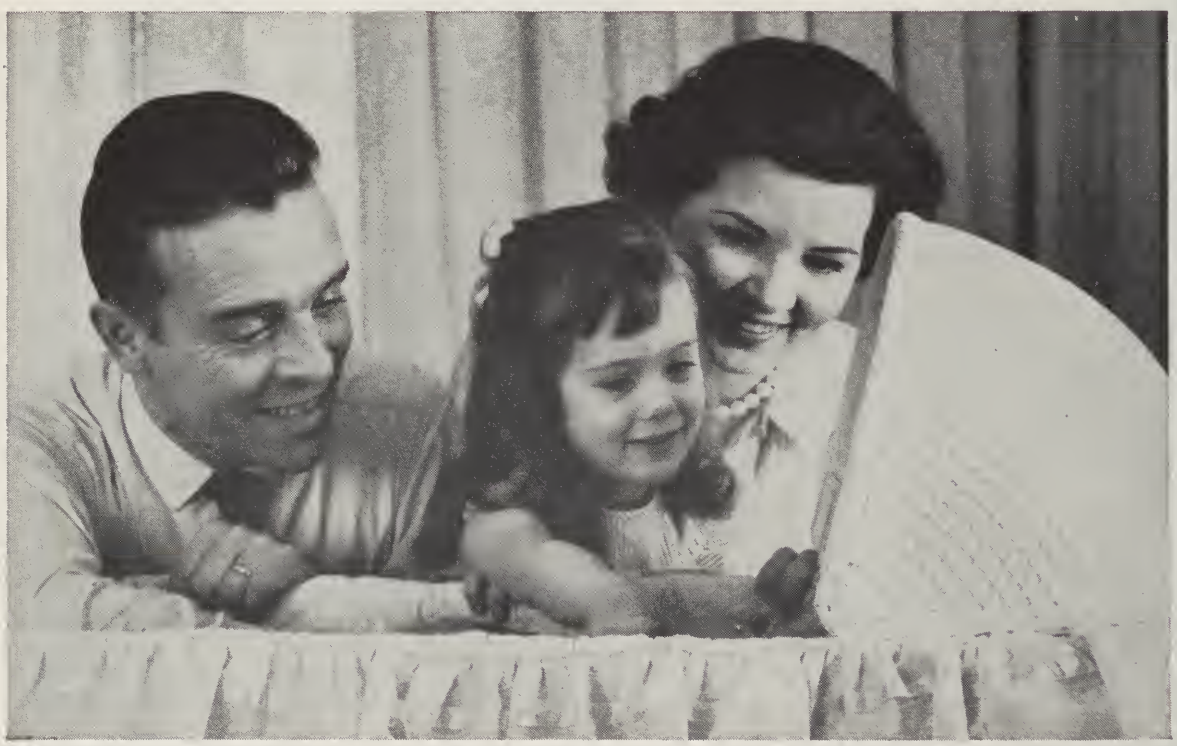
The new baby is beautiful, but his arrival raises some problems in family planning on which the mother will need help — *your* help. What you counsel or suggest to her may determine the family's happiness for many years to come. When she comes in to see you for her routine postnatal check-up, you have an ideal opportunity to counsel her and answer her questions. It's also an ideal time to recommend the use of Lanesta Gel.

Lanesta Gel, with or without a diaphragm, is a most effective means of conception control. Lanesta Gel offers faster spermicidal action because it rapidly diffuses into the seminal clot. In fact, the mean diffusion spermicidal time of Lanesta Gel is three to seven times faster than the mean diffusion times of ten leading commercially available contraceptive creams, gels, or jellies, according to Gamble ("Spermicidal Times of Commercial Contraceptive Materials — 1959").*

Lanesta Gel has complete esthetic acceptance and is well tolerated.

*Gamble, C.J.: Am. Pract. & Digest. Treat. *11*:852 (Oct.) 1960. See also Berberian, D.A., and Slighter, R.G.: J.A.M.A. *168*:2257 (Dec. 27) 1958; Kaufman, S.A.: Obst. and Gynec. *15*:401 (March) 1960; Warner, M.P.: J.Am.M. Women's A. *14*:412 (May) 1959.

A PRODUCT OF LANTEEN® RESEARCH BREON Distributed by
Supplied by Esta Medical Laboratories, Inc., Alliance, Ohio BREON LABORATORIES INC., New York 18, N. Y.





you had to make your own children's multivitamins

hances are you'd try to make them very much like our new Vi-Daylin® Chewable with Entrapped Flavor. apped Flavor means a better tasting chewable children's multivitamin; one with no vitamin aftertaste. Here's : 1. We coat all the vitamins in a digestible film that does not dissolve until it reaches the gastrointestinal tract. means that unpleasant strong vitamin tastes are not released in the mouth, but in the g-i tract where they most quickly absorbed. 2. We make certain that every Vi-Daylin Chewable tablet tastes citrus sweet good to every patient, everytime; we coat the flavoring oils in each tablet in a water soluble film. This dissolves immediately in the mouth, releasing the full bouquet of our citrus-candy flavoring agents. Now know why little patients always taste the flavor, never the vitamins, when you prescribe Vi-Daylin Chewable. And the formula's all you'd expect, with reasonable amounts of A & D. te test them yourself and you'll prescribe **VI-DAYLIN CHEWABLE** regularly and soon.

ABBOTT

lin—Vitamins A, D, B_1, B_2, B_6, B_{12}, C and Nicotinamide. Abbott

Profile of a multivitamin



New Vi-Daylin Chewable —with entrapped flavor

New Formula

In recognition of recent medical thinking, we've reduced the vitamin D in our formula from 20 mcg. (800 units) to 10 mcg. (400 units). At the same time, we've increased the vitamin C content from 40 mg. to 50 mg. per tablet and per 5-cc. lemon-candy teaspoonful.

All Other Elements Remain at Their Previous Level.

Vitamin A (3000 units)	0.9 mg.
Thiamine Mononitrate	1.5 mg.
Riboflavin	1.2 mg.
Cobalamin (B_{12})	3 mcg.
Nicotinamide	10 mg.
Pyridoxine Hydrochloride	1 mg.

New Low Price

In quantities of 100 tablets our new Chewable costs less than 4¢ a tablet and the normal dosage is one tablet daily. No financial hardship for your patients when you prescribe or recommend Vi-Daylin.

New Shape, New Color, New Bottle

New Vi-Daylin Chewable tablets are football shaped. This shape got a high degree of acceptance in our taste-tests and seems to have an intrinsic interest for children. The orange color ties in with the mild, sweet citrus flavor. And the wide-mouthed new bottle looks handsome on the table.

Taste-Test New Vi-Daylin Chewable Yourself

Won't you taste-test new Vi-Daylin Chewable multivitamins yourself? We're certain you'll be pleasantly surprised at their sweet good taste. They're the candy-flavored multivitamins with *entrapped flavor* . . . little folks taste the candy flavor, never the vitamins.

ABBOTT

VI-DAYLIN—Vitamins A, D, B_1, B_2, B_6, B_{12}, C, and Nicotinamide, Abbott

National Poison Prevention Week Set for March 18-24

Representatives of 21 professional, industrial, and service organizations, and federal agencies met at the Statler-Hilton Hotel in Washington, D. C., on Nov. 21 to plan for the first National Poison Prevention Week, to be observed March 18-24, 1962.

A recent act of Congress authorized the President to designate the third week of March each year as National Poison Prevention Week.

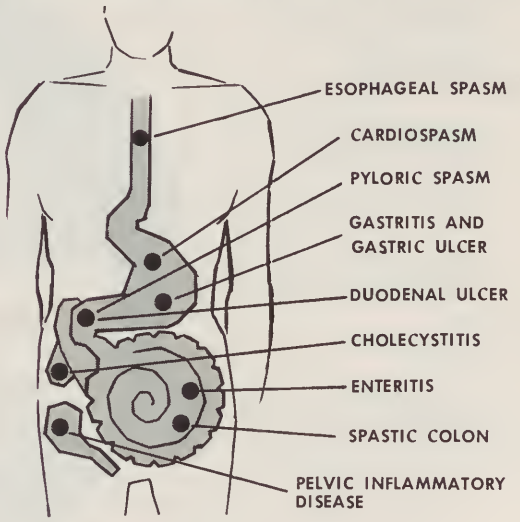
The meeting, called by the National Clearinghouse for Poison Control Centers of the U. S. Public Health Service and the American Pharmaceutical Association, selected children under five years of age as their prime target. Some 302,000 children under five suffer accidental poisoning every year.

A steering committee, composed of representatives of the two host organizations, the National Safety Council, the Food and Drug Administration, and the American Academy of Pediatrics, will coordinate activities for 1962.

Honorary chairman of the steering committee is Homer A. George, a practicing pharmacist of Cape Girardeau, Mo., whose almost single-handed campaign of several years culminated in passage of the act designating the third week of March each year as National Poison Prevention Week. H.J. Resolution 358 was sponsored by Congressman Paul C. Jones of Missouri, and was signed into law as PL 87-319 by President Kennedy on Sept. 26, 1961. Other members of the steering committee are Phil Dykstra, National Safety Council; George B. Griffenhagen, American Pharmaceutical Association; Dr. Irvin Kerlan, Food and Drug Administration; Dr. Edward Press, American Academy of Pediatrics, and Lou Verhulst, U. S. Public Health Service.

Organizations represented at the meeting were: American Academy of Pediatrics, American Association of Poison Control Centers, American Dental Association, American Hospital Association, American Medical Association, American National Red Cross, American Nurses' Association, American Petroleum Institute, American Public Health Association, Food and Drug Administration, Health Insurance Institute, Junior Chamber of Commerce, National Agricultural Chemical Association, National Association of Broadcasters, National Congress of Parents and Teachers, National Paint, Varnish and Lacquer Association, National Safety Council, Pharmaceutical Manufacturers' Association, Proprietary Association, U. S. Public Health Service, American Pharmaceutical Association.

A TOTAL
Antispasmodic
HOMAPIN-4®



HOMAPIN-4® . . .

A single pure synthetic alkaloid which acts quickly to relieve pain and spasm.

Exceptionally effective, it is four times more potent than Atropine in depressing ganglionic transmissions.

Results are achieved with minimal side effects when administered in the recommended dosage range.

CONTRAINDICATIONS: All anticholinergics should be withheld in glaucoma.

PRECAUTIONS: The effect of Homapin® on the bladder is negligible, but caution should be observed in patients with prostatic hypertrophy.
DOSAGE: One or two tablets every 4 hours. Usual dosage range, 10-80 mg. Homatropine Methylbromide daily.

SUPPLIED: Bottles of 100, 500 and 1,000.

EACH TABLET CONTAINS:
Homatropine Methylbromide 10. mg. (1/6 grain)
Phenobarbital 16. mg. (1/4 grain)
WARNING: May be habit forming.
CAUTION: Federal law prohibits dispensing without a prescription.

COMPLETE LITERATURE AND SAMPLES UPON REQUEST.

Mission Pharmacal Co.
SAN ANTONIO 6, TEXAS

NEW comprehensive digestant with the *most potent* enzyme available for digestion of



—also unsurpassed potency for digestion of starch, protein and cellulose

—the *only* digestant with Lipancreatin,* proven superior to Pancreatin N.F.

—the *only* digestant with fat-splitting lipase activity 12 times as great as that of Pancreatin N.F.

When the question is digestion because of your patient's inability to handle fat, starch, protein or cellulose, you can provide dependable relief with COTAZYM-B, which contains the essential pancreatic enzymes lipase, trypsin and amylase, plus bile salts and cellulase. A daily dose of 6 COTAZYM-B tablets is sufficient to emulsify and digest 50 Gm. of dietary fat, and to digest all of the protein and starch in a typical diet (100 Gm. protein, 250 Gm. starch) and 480 mg. cellulose.

Dosage: 1 or 2 tablets with water just before each meal.

Supply: Bottles of 48 tablets.

Write for samples and comprehensive literature.

NEW Cotazym®-B

Lipancreatin Bile Salts Cellulase

ORGANON INC., West Orange, New Jersey

Organon

**The Significance of Lipancreatin* (Pancreatic Enzymes Concentrated 'Organon')

A product of original Organon research, lipancreatin provides *for the first time in digestant preparations a known, constant amount of fat-digesting lipase* in addition to trypsin and amylase. It surpasses in assayable digestive activity *all* presently available pancreatin preparations.

TRUSTEES, COUNCILS, AND COMMITTEES

BOARD OF TRUSTEES

H. H. McClanahan, Jr., Columbus, Chairman
John B. Howell, Jr., Canton, Vice Chairman
C. D. Taylor, Jr., Pass Christian, Secretary
John G. Archer, Greenville
Joseph B. Rogers, Oxford
S. Lamar Bailey, Kosciusko
Lamar Arrington, Meridian
C. P. Crenshaw, Jr., Collins
Everett H. Crawford, Tylertown

COUNCIL ON BUDGET AND FINANCE

W. K. Purks, Vicksburg, Chairman (1963)
Charles L. Neill, Jackson (1962)
Omar Simmons, Newton (1964)

EDITORIAL COUNCIL

W. Moncure Dabney, Crystal Springs, Editor (1963)
George H. Martin, Vicksburg, Associate Editor (1962)
Dewitt W. Hamrick, Corinth, Associate Editor (1963)

COUNCIL ON MEDICAL EDUCATION

Temple Ainsworth, Jackson, Chairman (1963)
E. LeRoy Wilkins, Clarksdale (1961)
L. T. Carl, Jackson (1962)

COUNCIL ON CONSTITUTION AND BY-LAWS

E. LeRoy Wilkins, Clarksdale, Chairman (1963)
Frank C. Massengill, Brookhaven (1962)
John B. Howell, Jr., Canton (1961)

COUNCIL ON LEGISLATION

W. E. Lotterhos, Jackson, Chairman (1963)
A. Street, Vicksburg (1962)
Lamar Arrington, Meridian (1964)
Fred M. Sandifer, Greenwood (1962)
R. E. Shands, New Albany (1962)
Frank M. Davis, Corinth (1962)
Paul B. Brumby, Lexington (1964)
Van C. Temple, Hattiesburg (1963)
A. V. Beacham, Magnolia (1963)
James T. Thompson, Moss Point (1963)

JUDICIAL COUNCIL

E. LeRoy Wilkins, Clarksdale, Chairman (1962)
Eugene M. Murphey, III, Tupelo (1962)
N. C. House, Batesville (1962)
Samuel B. Caruthers, Grenada (1963)
George H. Martin, Vicksburg (1963)
Omar Simmons, Newton (1963)
A. T. Tatum, Petal (1964)
G. Swink Hicks, Natchez (1964)
W. J. Weatherford, Pascagoula (1964)

COUNCIL ON MEDICAL SERVICE

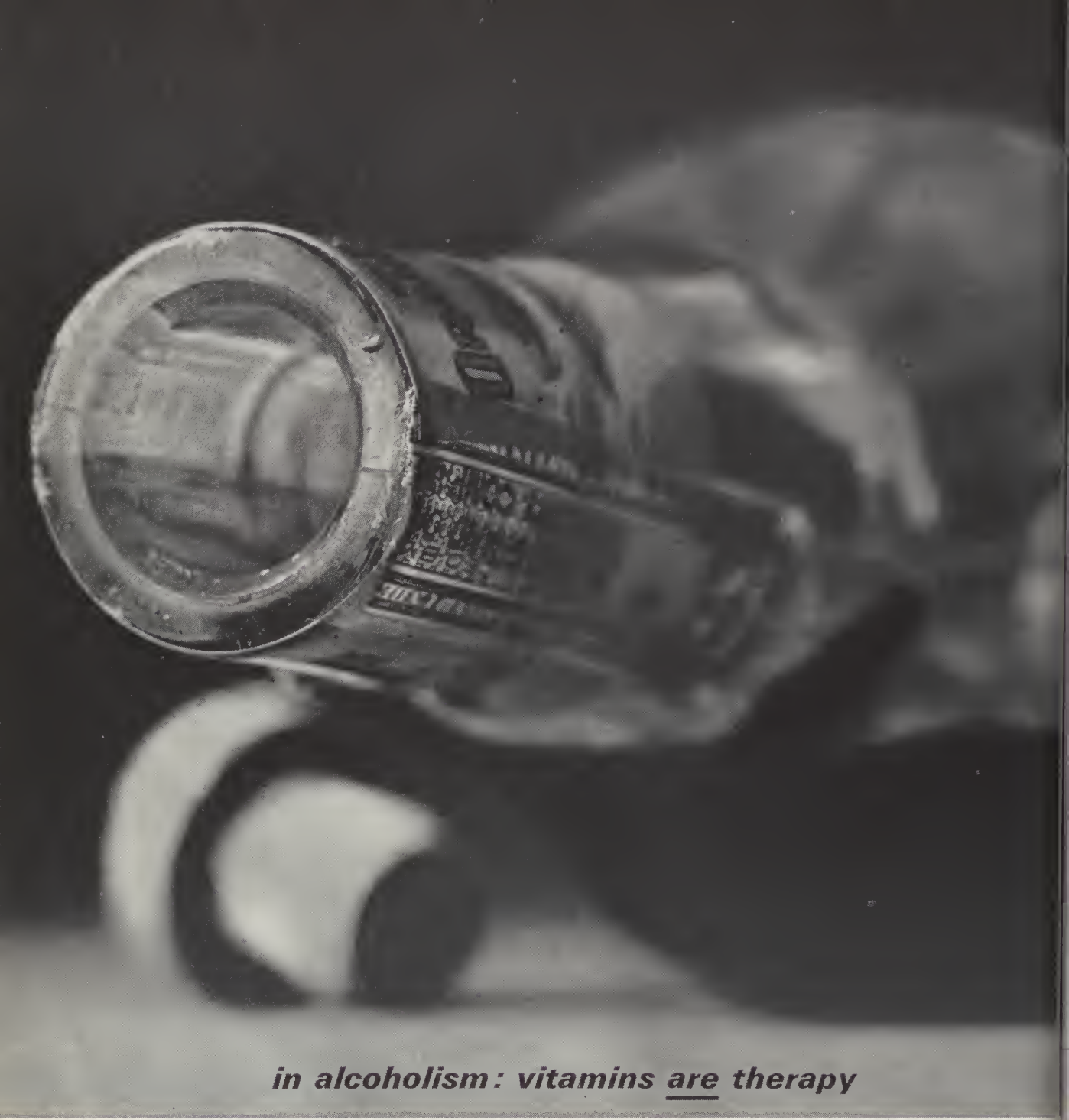
Guy T. Vise, Meridian, Chairman (1962)
M. Q. Ewing, Amory, Vice Chairman (1963)
S. Lamar Bailey, Kosciusko, Secretary (1962)
Frank M. Acree, Greenville (1963)
Joseph B. Rogers, Oxford (1963)
Lynn D. Abernethy, Jackson (1962)
T. E. Ross, Hattiesburg (1964)
E. H. Crawford, Tylertown (1964)
Fred C. Minkler, Pascagoula (1964)

COUNCIL ON SCIENTIFIC ASSEMBLY

C. G. Sutherland, Jackson, Chairman (1964)
William T. Wilkins, Clarksdale, EENT
John B. Howell, Jr., Canton, GP
Raymond F. Grenfell, Jackson, Medicine
Michael Newton, Jackson, Ob-Gyn
Frank M. Wiygul, Jackson, Pediatrics
Percy T. Howell, Decatur, Preventive Medicine
James T. Thompson, Moss Point, Surgery

COUNCIL ON SOCIOECONOMIC AFFAIRS

Lyne S. Gamble, Greenville, Chairman (1962)
Joseph L. Guyton, Pontotoc (1962)
J. T. Davis, Corinth (1962)
Mal S. Riddell, Winona (1963)
Carl D. Brannan, Jackson (1963)
C. B. Mitchell, Jr., Meridian (1963)
S. B. McIlwain, Pascagoula (1964)
Frank L. Ramsay, Laurel (1964)
Oscar G. Eubanks, Crystal Springs (1964)



in alcoholism: vitamins are therapy

A full "comeback" for the alcoholic is partly dependent on nutritional balance...aided by therapeutic allowances of B and C vitamins. Typically, the alcoholic patient is seriously undernourished...from long-standing dietary inadequacy, from depletion of basic reserves of water-soluble vitamins. Supplied in decorative "reminder" jars of 30 and 100.

Each capsule contains:	
Vitamin B_1 (Thiamine Mononitrate)	10 r
Vitamin B_2 (Riboflavin)	10 r
Niacinamide	100 r
Vitamin C (Ascorbic Acid)	300 r
Vitamin B_6 (Pyridoxine HCl)	2 r
Vitamin B_{12} Crystalline	4 mc
Calcium Pantothenate	20 r

Recommended intake: Adults, 1 capsule da or as directed by physician, for the treatm of vitamin deficiencies.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

STRESSCAPS®

Stress Formula Vitamins Lederle

...WITH 'METHEDRINE' SHE CAN HAPPILY REFUSE!



Controls food craving, keeps the reducer happy — In obesity, "our drug of choice has been methedrine . . . because it produces the same central effect with about one-half the dose required with plain amphetamine, because the effect is more prolonged, and because undesirable peripheral effects are significantly minimized or entirely absent." Douglas, H. S.: West.J.Surg. 59:238 (May) 1951.

'METHEDRINE'®

brand Methamphetamine Hydrochloride

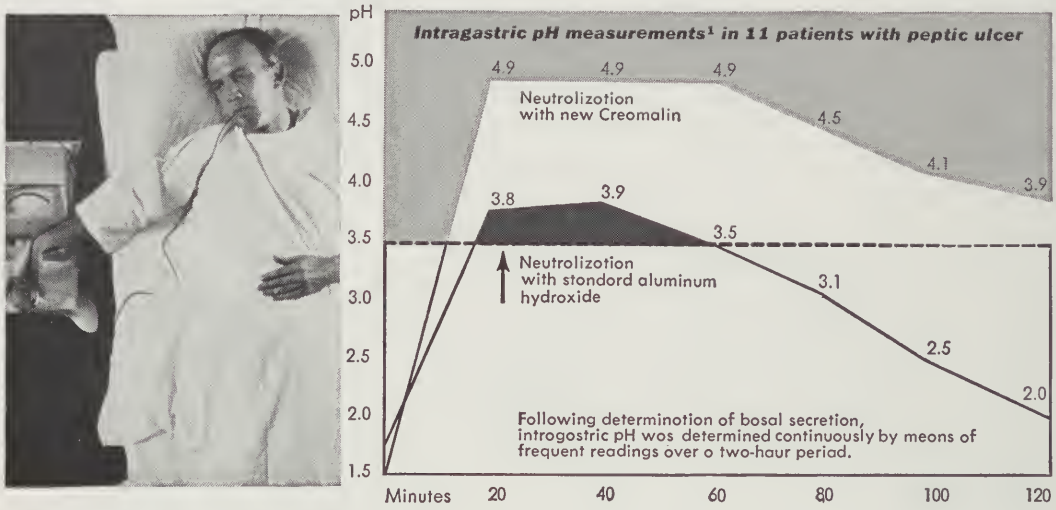
Supplied: Tablets 5 mg., scored. Bottles of 100 and 1000.

Literature available on request.

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York

Acts as well in people as in test tubes

in vivo
neutralizes
40 to 50 per cent
faster—
twice as long at
pH 3.5 or above



New Creamalin®

Antacid Tablets

Buffers fast[1,4] for fast relief of pain—
takes up more acid

Heals ulcer fast—action more prolonged *in vivo*

Has superior action of a liquid, with the convenience of a tablet[5]

Each new Creamalin antacid tablet contains 320 mg. of specially processed, highly reactive dried aluminum hydroxide gel (stabilized with hexitol) with 75 mg. of magnesium hydroxide. New Creamalin tablets are pleasant tasting and smooth, not gritty. They do not cause constipation or electrolyte disturbance.

Dosage: Gastric hyperacidity—from 2 to 4 tablets as needed.
Peptic ulcer or gastritis—from 2 to 4 tablets every two to four hours.

How Supplied: Creamalin Tablets, bottles of 50, 100, 200 and 1000.
Also available: New Creamalin Liquid (1 teaspoon=1 tablet),
bottles of 8 and 16 fl. oz.

References: **1.** Schwartz, I. R.: *Current Therap. Res.* 3:29, Feb., 1961. **2.** Beekman, S. M.: *J. Am. Pharm. A.* (Scient. Ed.) 49:191, April, 1960. **3.** Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: *J. Am. Pharm. A.* (Scient. Ed.) 48:381, July, 1959. **4.** Data in the files of the Department of Medical Research, Winthrop Laboratories. **5.** Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: *J. Am. Pharm. A.* (Scient. Ed.) 48:384, July, 1959.

Winthrop LABORATORIES
New York 18, N.Y.

FOR PEPTIC ULCER • GASTRITIS • GASTRIC HYPERACIDITY

INDEX TO ADVERTISERS

In accepting advertising for publication, the JOURNAL has exercised reasonable precaution to insure that only reputable, factual advertisements are included. Nevertheless, claims made by advertisers in behalf of goods, services, and medicinal preparations, apparatus or physical appliances are understood to be those of the advertiser. Neither sanction nor endorsement of such is warranted, stated, or implied by the association.

	Adv. page
Abars Pharmaceuticals	center
Abbott Laboratories	insert, 32, 33, insert
Ames Company	51
Amid Laboratories	11
Annual Session	before center
Appalachian Hall	26
Blue Cross	18
Breon Laboratories	42
Burroughs Wellcome	16, 17, 47
First Federal of Jackson	after center
First Texas Pharmaceuticals	30
Hill Crest Sanitarium	34
Kay Surgical	34
Lederle Laboratories	12, 13, 46
Eli Lilly	front cover, 28
P. Lorillard	23
Mission Pharmacal Company	43
Mutual of Omaha	20, 21
Organon, Inc.	44
Parke, Davis and Company	2, 3
Pfizer Laboratories	6, 7, 8, insert
Physicians Casualty	34
A. H. Robins	insert, 19, 31
Roche Laboratories	back cover
J. B. Roerig	22
St. Paul Fire and Marine Insurance Company	26
Sardeau	10
W. B. Saunders	9
Schering Corporation	27
G. D. Searle	29
E. R. Squibb	40, 41
U. S. Brewers	37
U. S. Vitamin	24, 25
Upjohn Company	38, 39
Wallace Laboratories	15, 50
Winthrop Laboratories	4, 14, 35, 48

Articles for Publication

Manuscripts should be typewritten, double spaced on one side of the paper. Tables, charts, and tabulations should be submitted on separate sheets but their position in the text should be indicated. Authors are encouraged to limit bibliographies to 10 references, written in conformation to style utilized in scientific publications of the American Medical Association. Articles are accepted for publication on the condition that they have not been previously published and are contributed solely to this JOURNAL.

A thesis summary of 75 to 100 words must accompany each manuscript separately from the text. Figures and drawings are acceptable when prepared with black ink on white paper. Photographs for illustrations should be unmounted, untrimmed, glossy prints and all such material must be identified. No charges are made to authors for illustration engravings not exceeding four column inches per printed page.

Reprints may be obtained at cost from the association. The right is reserved to decline any manuscript for publication. Ordinarily, manuscripts submitted will be acknowledged whether published or not.

CLASSIFIED

Openings for residents in psychiatry in 915 bed progressive hospital. Three year approved psychiatric residency through affiliation with Louisiana State University and Tulane University Medical Schools. Opportunities for teaching and research; psychoanalysis available in third year by private arrangement; organized training while living on the beautiful Gulf Coast. Starting salaries from $6,995 to $10,635, plus many fringe benefits. For information write Dr. J. T. May, Associate Chief of Staff, VA Hospital, Gulfport, Mississippi.

QUICKIE DIAGNOSIS

The condition of a man is best judged from what he takes two at a time—stairs or pills.



Put your low-back patient back on the payroll

Soma relieves stiffness —stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, fast!

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

Kestler reports in controlled study: *Average time for restoring patients to full activity: with Soma, 11.5 days; without Soma, 41 days.* (*J.A.M.A. Vol. 172, No. 18, April 30, 1960.*)

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. USUAL DOSAGE: 1 TABLET Q.I.D.

The muscle relaxant with an independent pain-relieving actio

SOMA®

(carisoprodol, Wallac

Wallace Laboratories, Cranbury, New Jerse



IN FUNCTIONAL G.I. AND BILIARY DISTURBANCES ...TO EACH PATIENT ACCORDING TO THE NEED

DECHOLIN-BB®

Hydrocholeretic • Antispasmodic • Sedative...to reduce *TENSION* and anxiety-induced dysfunction of G.I. and biliary tracts...and also relieve both smooth-muscle *spasm* and biliary/intestinal *stasis*

butabarbital sodium ..... 15 mg. (¼ gr.)
(Warning–may be habit forming)
dehydrocholic acid, AMES .....250 mg. (3¾ gr.)
belladonna extract ..... 10 mg. (⅙ gr.)

DECHOLIN® with Belladonna

Hydrocholeretic–Antispasmodic...to relax *SPASM* of smooth muscle of G.I. tract and sphincter of Oddi...and also counteract biliary/intestinal *stasis*

dehydrocholic acid, AMES .....250 mg. (3¾ gr.)
belladonna extract ..... 10 mg. (⅙ gr.)

DECHOLIN®

Hydrocholeretic...to combat *STASIS* in bowel and biliary tract...by activating biliary function with a greatly increased flow of aqueous "therapeutic" bile

dehydrocholic acid, AMES .....250 mg. (3¾ gr.)

Average adult dose: 1 or, if necessary, 2 tablets three times daily.

Side effects: DECHOLIN by itself, or as an ingredient, may cause transitory diarrhea. Belladonna in DECHOLIN with Belladonna and DECHOLIN-BB may cause blurred vision and dryness of mouth.

Contraindications: Biliary tract obstruction, acute hepatitis, and (for DECHOLIN with Belladonna and DECHOLIN-BB) glaucoma.

Precautions: Periodically check patients on DECHOLIN with Belladonna and DECHOLIN-BB for increased intraocular pressure. Also observe patients on DECHOLIN-BB for evidence of barbiturate habituation or addiction, and warn drivers against any risk of drowsiness.

Available: DECHOLIN-BB, in bottles of 100 tablets; DECHOLIN with Belladonna and DECHOLIN, in bottles of 100 and 500.

11161

AMES
COMPANY, INC
Elkhart • Indiana
Toronto • Canada

ANXIETY TENSION & THE LIBRIUM EFFECT

LIBRARY
NAT LIBRARY OF MED
WASHINGTON 25 D C

A patient treated with Librium feels different, even after a few doses. He appears different to his family and to his physician. Different, in the sense of a change from the previous state of anxiety and tension, and also freed from the sensations created by daytime sedatives or tranquilizers. That the striking difference in Librium was first observed in a series of ingenious animal experiments is mainly of theoretical interest. Of more practical importance, for example, is that Librium lacks any depressant effect—a fact which can assume overriding clinical importance. And this is but one of the ways in which the difference can be observed.

Librium deserves to be studied at first hand. Why not select twelve of your patients who show the emotional or somatic signs of anxiety, tension, or agitation, place six of them on Librium – and see the difference in effect for yourself.

THE SUCCESSOR
THE TRANQUILIZE

Consult literature and dosage inform
available on request, before presc

LIBRIUM® Hydrochloride – 7-chloro-2-methylamino
phenyl-3H-1,4-benzodiazepine 4-oxide hydrochlorid

ROCHE
ROCHE LABORATORIES
Division of Hoffmann-La Roche Inc.
Nutley 10, New Jersey

JOURNAL OF THE Mississippi STATE MEDICAL ASSOCIATION

MARCH 1962

can parallel lines diverge?

Though the vertical lines *appear* to bow out at the bottom, the fact remains . . . they are parallel. Similarly, when facts regarding oral penicillins are rearranged, they may distort the true picture. Low price and high "blood levels" are important considerations, but it's what a drug *does* that counts.

V-Cillin K® achieves two to five times the serum levels of antibacterial activity (ABA) produced by oral penicillin G.[1] Moreover, it is highly stable in gastric acid and, therefore, more completely absorbed *even in the presence of food*. Your patient gets more dependable therapy for his money . . . and it's therapy he really needs.

For consistently dependable clinical results
prescribe V-Cillin K in scored tablets of 125 and 250 mg. or V-Cillin K, Pediatric, in 40 and 80-cc.-size packages. Each 5-cc. teaspoonful contains 125 mg. crystalline potassium penicillin V.

V-Cillin K® (penicillin V potassium, Lilly)

1. Griffith, R. S.: Antibiotic Med. & Clin. Therapy, 7:129, 1960.

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana.

Lilly

233221

NATIONAL LIBRARY OF MEDICINE 1962

INDEX MEDICUS

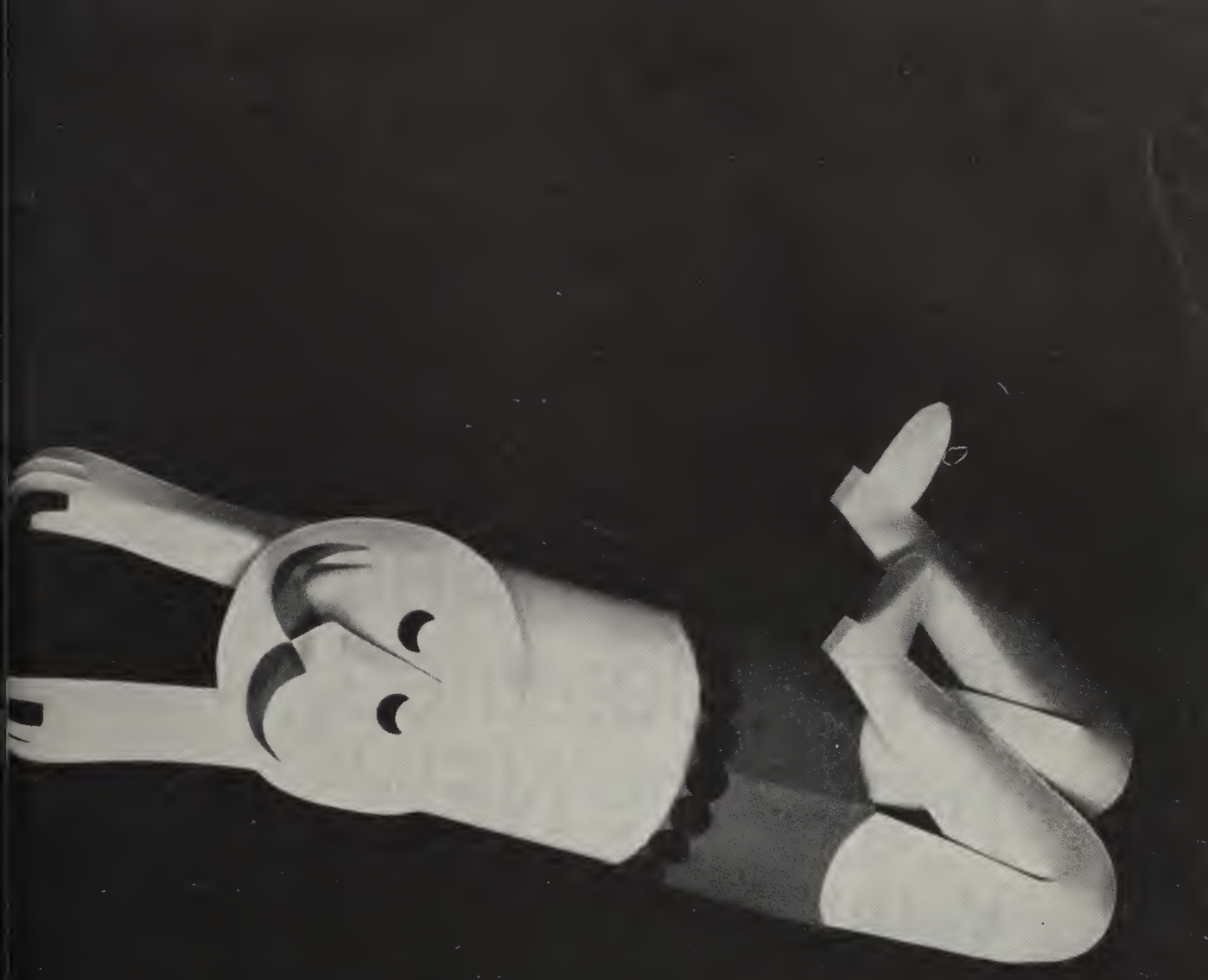
This Month . . . Infected Abortions, Closure of Traumatic Hand Wounds, Histoplasmosis, Antihypertensive Drugs, JMSMA Feature

M.S.M.A.

INDEX MEDICUS



when the perfect combination
is threatened by a cough..



Benylin® Expectorant

provides the right combination for effective cough control

Your patient probably has a more "down-to-earth" occupation than the trapeze artist, but persistent coughing can cause a comparable drop in performance. Not so when you prescribe BENYLIN EXPECTORANT. This outstanding antitussive preparation effectively suppresses coughs due to colds or allergy through its combination of judiciously selected ingredients.

Benadryl,® a potent antihistaminic-antispasmodic, calms the cough reflex, relieves bronchial spasm, and reduces nasal stuffiness, sneezing, lacrimation, other symptoms associated with colds, and coughs of allergic origin. Efficient expectorants break down tenacious mucous secretions, thereby relieving respiratory congestion. And the pleasant-tasting, raspberry-flavored syrup provides a soothing demulcent action that eases irritated throat membranes.

BENYLIN EXPECTORANT contains in each fluidounce:

Benadryl® hydrochloride (diphenhydramine hydrochloride, Parke-Davis)	80 mg.
Ammonium chloride	12 gr.
Sodium citrate	5 gr.
Chloroform	2 gr.
Menthol	0.1 gr.
Alcohol	5%

Supplied: BENYLIN EXPECTORANT is available in 16-ounce and 1-gallon bottles.

This advertisement is not intended to provide complete information for use. Please refer to the package enclosure, medical brochure, or write for detailed information on indications, dosage, and precautions.

PARKE-DAVIS

84762 PARKE, DAVIS & COMPANY, Detroit 32, Michigan

When it's more like "grippe" or



"flu" than a simple cold, but an antibiotic is not indicated... prescribe NEW WIN-CODIN* Tablets

New Win-Codin tablets provide greater symptomatic relief from influenza, colds and sinusitis than do simple analgesic-antihistamine combinations. New Win-Codin tablets contain a full complement of the most effective agents available to relieve general discomfort, bring down fever and lessen congestive symptoms.

Each tablet contains:

Codeine phosphate 15 mg.—to relieve local and generalized pain and control dry cough

Neo-Synephrine® 10 mg.—to shrink nasal membranes and open sinus ostia

Acetylsalicyclic acid 300 mg. (5 grains)—to reduce fever and relieve aching

Chlorpheniramine maleate 2 mg.—an antihistamine to shrink engorged membranes and lessen rhinorrhea

Ascorbic acid (vitamin C) 50 mg.—to increase resistance to infections†

New Win-Codin tablets will bring more comfort to many patients suffering from severe colds, influenza or sinusitis.

Average dose: Adults, 1 or 2 tablets three times daily; children 6 to 12 years, from ½ to 1 tablet three times daily.

Available in bottles of 100 (Class B narcotic).

*Trademark †For persons with vitamin C deficiency
Neo-Synephrine (brand of phenylephrine), trademark reg. U. S. Pat. Off.

Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.

Winthrop LABORATORIES
New York 18, N. Y.

15618

Volume III
Number 3
March 1962



JOURNAL of the Mississippi
STATE MEDICAL ASSOCIATION

• EDITOR
WILLIAM M. DABNEY, M.D.

• ASSOCIATE EDITORS
DEWITT HAMRICK, M.D.
GEORGE H. MARTIN, M.D.

• MANAGING EDITOR
ROWLAND B. KENNEDY

• EDITORIAL ASSISTANT
BETTY M. SADLER

• PUBLICATIONS COMMITTEE
LAWRENCE W. LONG, M.D.
Chairman
B. B. O'MARA, M.D.
WILLIAM E. LOTTERHOS, M.D.
and the Editors

• THE ASSOCIATION
LAWRENCE W. LONG, M.D.
President
C. P. CRENSHAW, M.D.
President-elect
C. G. SUTHERLAND, M.D.
Secretary-Treasurer
B. B. O'MARA, M.D.
Speaker
HOWARD A. NELSON, M.D.
Vice Speaker
ROWLAND B. KENNEDY
Executive Secretary
CHARLES L. MATHEWS
Assistant Executive Secretary

The JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION is owned and published by the Mississippi State Medical Association, founded 1856. Editorial, executive, and business offices, 735 Riverside Drive, Jackson, Mississippi; office of publication, 1201-5 Bluff Street, Fulton, Missouri. Subscription rate, $5 per annum; $1 per copy, as available. Advertising rates furnished on request. Second-class postage paid at the post office at Fulton, Missouri.

CONTENTS

ORIGINAL PAPERS

Antihypertensive Drugs: A Controlled Evaluation	93	RAYMOND F. GRENFELL, M.D., *et al.*
Infected Abortions	99	WARREN C. PLAUCHE, M.D.
Histoplasmosis: A Review with Case Reports	102	T. S. MCCAY, M.D.
Closure of Traumatic Wounds of the Hand	105	J. T. DAVIS, M.D.

SPECIAL FEATURES

Clinicopathological Conference XXVI	109	Mississippi Baptist Hospital
Medicine + Art = Success Formula	113	Journal MSMA Feature

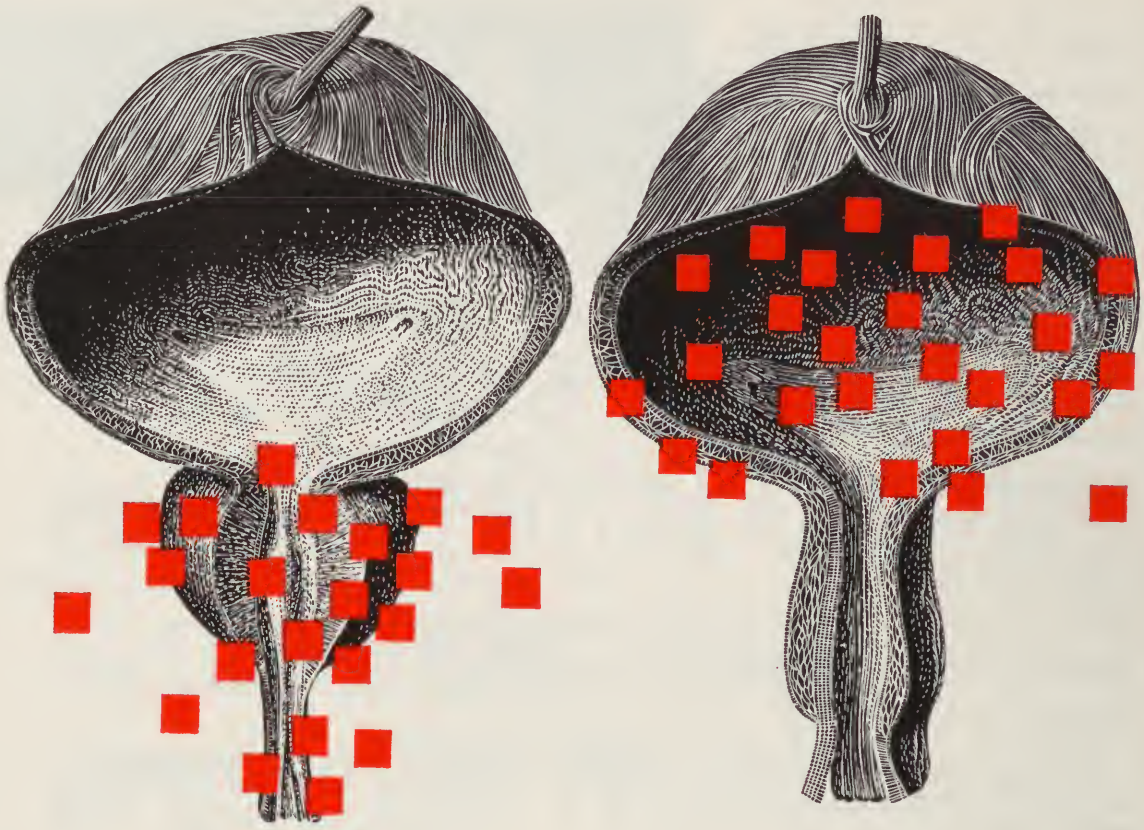
EDITORIALS

Subsidized Suicide	121	"Who Rides the Tiger"
Was Ernie Kovacs' Death Avoidable?	122	No Seat Belts
This Business of Bionics	122	Consider the Ant

THIS MONTH

The President Speaking	120	'The Voluntary Way'
The Literature	115	Books and Journals
Medical Organization	125	Around the State

Copyright 1962, Mississippi State Medical Association



Serenium

Squibb Ethoxazene (Diamino-Ethoxy-Azobenzene Hydrochloride)

Quickly eliminates pain and burning in the lower urinary tract

At real savings to your patients

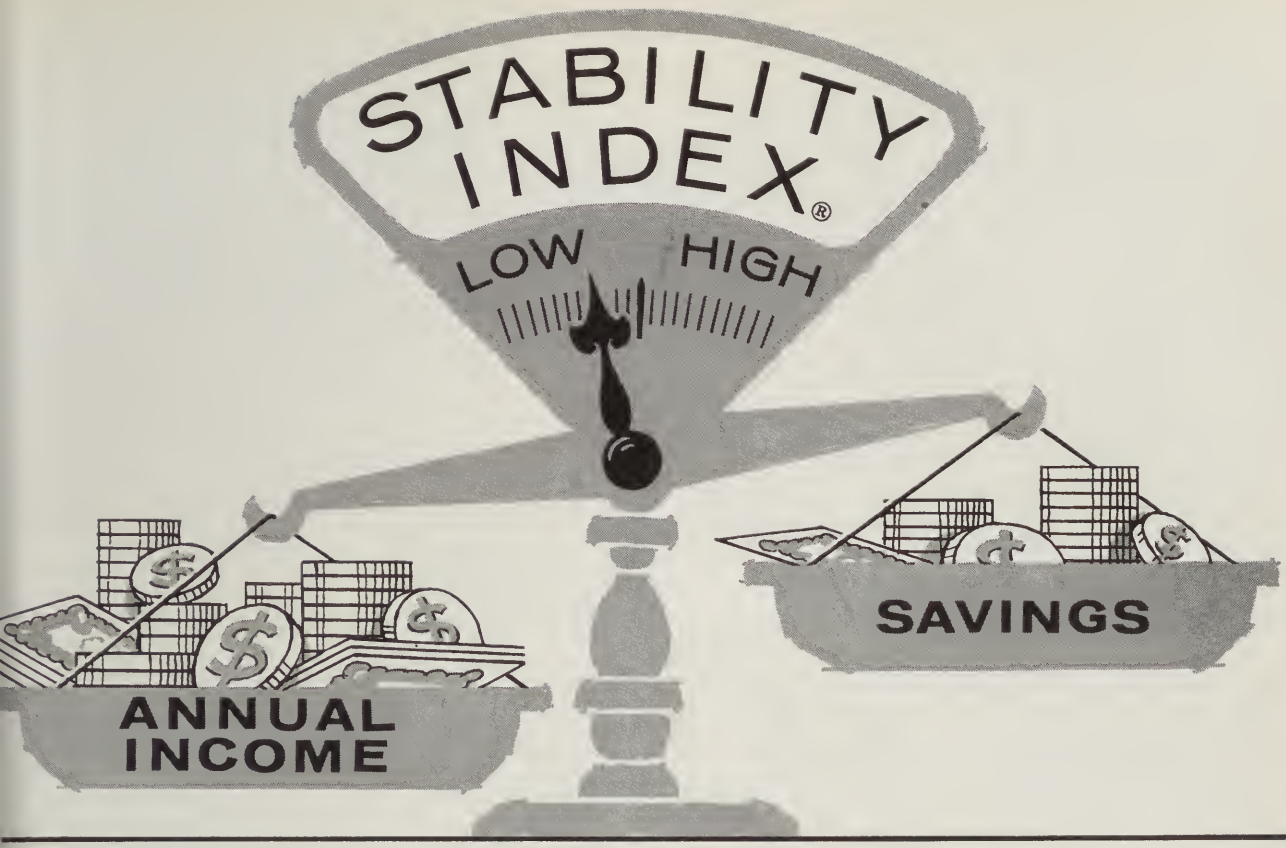
Serenium provides **quick, localized analgesic action** in acute and chronic urinary tract infections with **only 1 tablet** t.i.d. Your patient is assured of the prompt action of Serenium by the harmless orange-red color of the urine; and he will feel good about the **low prescription cost,** too.

Supply: Bottles of 50 and 500 chocolate-covered tablets. Each tablet contains 0.1 Gm. of Squibb Ethoxazene. For full information see your Squibb Product Reference or Product Brief.

Serenium® is a Squibb trademark

SQUIBB *Squibb Quality—the Priceless Ingredient*

SQUIBB DIVISION Olin



How does your STABILITY INDEX® balance up today?

Savings equal to at least one year's income—that's the Stability Index formula which thousands of First Federal's savers follow as they add regularly to their savings accounts. They've set a goal for themselves—and the habit of regular saving each payday is the way they'll reach that goal . . . **Regular saving**—$5 a week, $10 a month, or whatever amount you choose—has the security of a wise investment as you improve your Stability Index . . . **Perhaps you want** a new boat for fun and fishing on the Reservoir a few years from now. Perhaps it's a new car, or a new house, or an exciting vacation you want instead. Or maybe you're thinking ahead to the time when you'll have expenses of a college education or the need for retirement security.

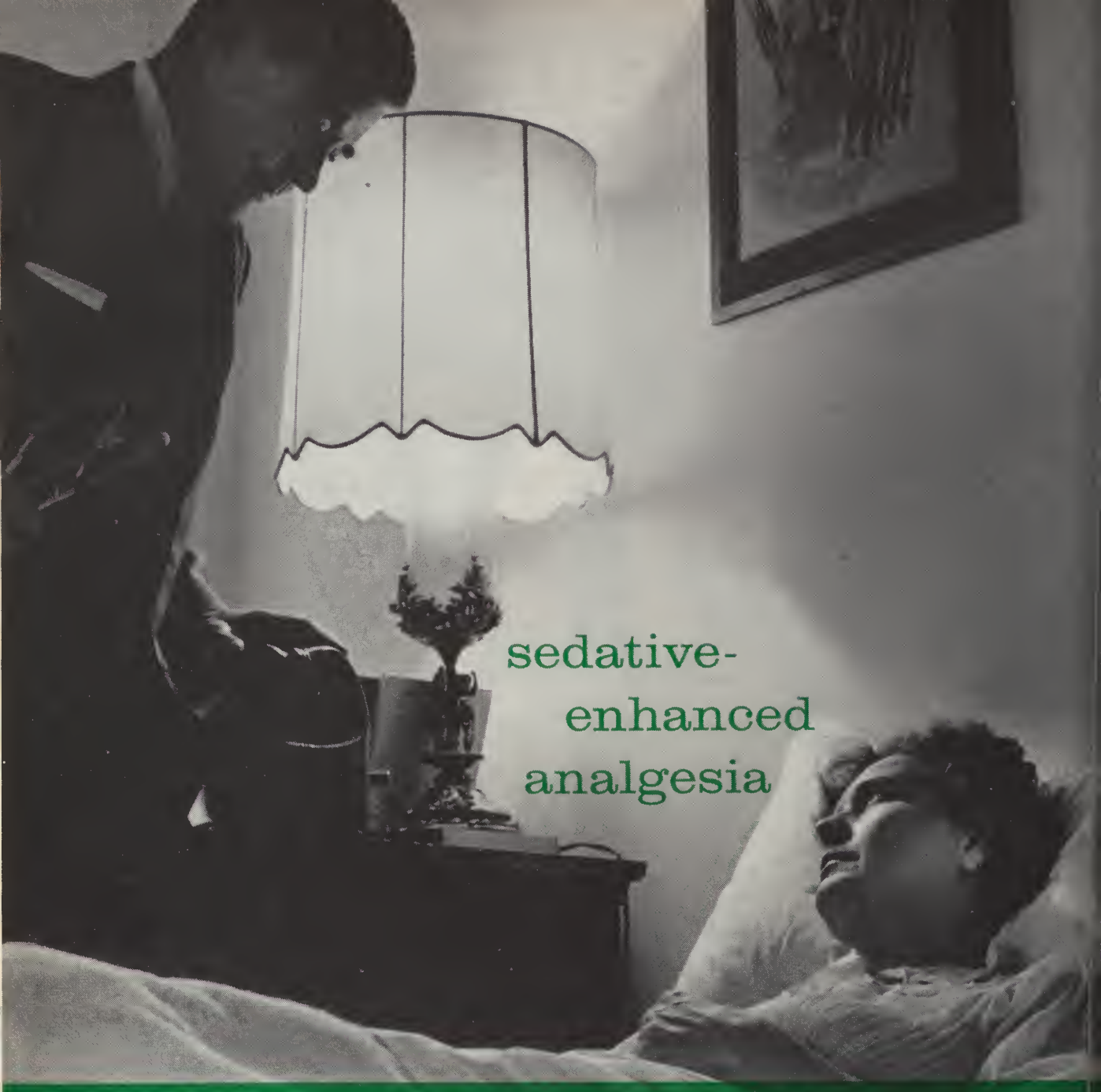
Whatever your purpose, a First Federal savings account will help you reach your goal. Accounts are insured by a permanent agency of the Federal government . . . your savings are readily available for withdrawal . . . and the experience of First Federal's directors and staff assures sound, conservative management of your money. Visit us soon, or open your account by mail (P. O. Box 1818) and start building your Stability Index to a high level of financial security.



FIRST FEDERAL SAVINGS
AND LOAN ASSOCIATION

WESTLAND BRANCH at ROBINSON ROAD | **MAIN OFFICE: 204 SO. STATE ST.** | MEADOWBROOK BRANCH at NO. STATE STREET

JACKSON, MISSISSIPPI



for more satisfactory relief of anxiety-aggravated pain

PHENAPHEN®

- More satisfactory than "the usual analgesic compounds" for relieving pain and anxiety.[1]
- More effective than a standard A.P.C. preparation for relief of moderate to severe pain.[2]

Each PHENAPHEN *capsule contains:*

Acetylsalicylic acid (2½ gr.)	162 mg.
Phenacetin (3 gr.)	194 mg.
Phenobarbital (¼ gr.)	16.2 mg.
Hyoscyamine sulfate	0.031 mg.

Also available:

PHENAPHEN with CODEINE PHOSPHATE ¼ GR. (16.2 mg.) Phenaphen No. 2

PHENAPHEN with CODEINE PHOSPHATE ½ GR. (32.4 mg.) Phenaphen No. 3

PHENAPHEN with CODEINE PHOSPHATE 1 GR. (64.8 mg.) Phenaphen No. 4

Bottles of 100 and 500 capsules.

1. Meyers, G. B.: Ind. Med. & Surg. 26:3, 1957. 2. Murray, R. J.: N. Y. St. J. Med. 53:1867, 1953.

A. H. ROBINS CO., INC., RICHMOND 20, VIRGINIA

Making today's medicines with integrity... seeking tomorrow's with persistence.

Robins



Kent's development of the "Micronite" filter revolutionized the cigarette industry. Shortly after introduction of Kent with its famous filter, the swing to filter cigarettes got started in earnest. And no wonder. Kent with the "Micronite" filter refines away harsh flavor, refines away hot taste, makes the taste of a cigarette mild and kind.

Yes, Kent is kind-tasting to your taste buds, kind-tasting to your throat. Your taste buds become clear and alive with Kent.

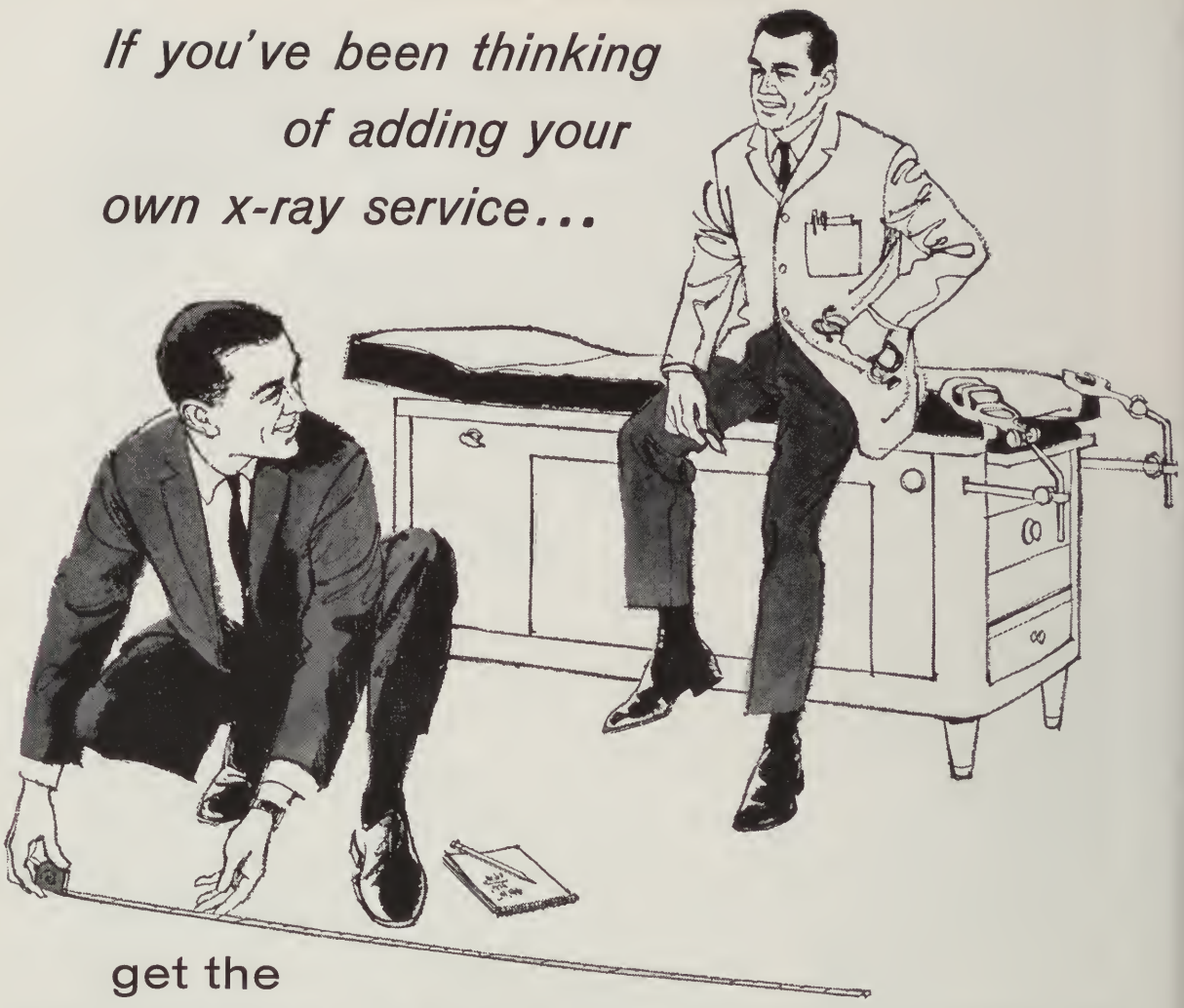
• • •

Your taste buds will tell you why you'll feel better about smoking with the taste of Kent.

A PRODUCT OF P. LORILLARD COMPANY · FIRST WITH THE FINEST CIGARETTES · THROUGH LORILLARD RESEARCH

© 1961 P. LORILLARD CO.

If you've been thinking of adding your own x-ray service...



get the

PRACTICAL FACTS

from your G-E man...

His kind of help really pays off: your G-E representative takes the exact measure of all your needs and comes-up with balanced x-ray recommendations and realistic figures. He weighs the nature of your individual situation, patient schedules, space problems and a host of related factors, before developing proposals.

Ask him questions uppermost in your mind, whether they concern a new G-E Patrician x-ray unit, or the appropriate film-processing and reading facilities. He has answers right at his fingertips. Years of specialized experience let him help make the most of just a *modest investment.* Phone or write today, for his obligation-free survey of your needs.

• *MAXISERVICE®* X-Ray Rental can offer you an ideal alternative to outright purchase! Your G-E man will show you how it provides equipment of your choice *without downpayment*, for a modest monthly fee. Included are maintenance, parts, tubes, insurance, and paid-up local taxes. Also simplifies your income-tax problems. It's the easy way to have "pay-as-you-go" x-ray!

Progress Is Our Most Important Product

GENERAL ELECTRIC

DIRECT FACTORY BRANCHES
MEMPHIS
778 Madison Ave. • JAckson 5-0526
NEW ORLEANS
7715 Edinburgh St. • HUnter 8-7742

RESIDENT REPRESENTATIVES
BATON ROUGE
C. A. EBERSBAKER
2451 Honeysuckle Ave. • DIckens 2-2308
JACKSON
G. L. LAUDERDALE
Box 4344 Fondren Station • FLeetwood 3-5937



Even if you prescribed a year's supply



the last Optilets® Filmtab® would still be good

Actually, doctor, labeled potency will last a much longer time. While we would never recommend by-the-year dosage of a therapeutic nutritional, this does illustrate the unusual stability of Optilets.

The reason, of course, is Filmtab coating. Unlike previous sugar coatings, no water is needed for application. This virtually eliminates chances of moisture degradation.

Greater stability, however, is just one of Optilets advantages. Without sugar's bulk, we can make tablets up to 30% smaller in size. Coatings are less brittle, and tablets less apt to chip or break. As Filmtab coatings are no more than paper-thin, nutrients are more readily available. Yet, patients are protected from vitamin odors and after-tastes.

While stability is important and easy administration an advantage, ingredients are, of course, the main criteria for any nutritional. Please check the Optilets formulas, doctor. We think you'll find them a good choice for your patients.

ABBOTT LABORATORIES NORTH CHICAGO, ILLINOIS

Optilets

Each Filmtab represents:

Vitamin A	7.5 mg. (25,000 units)
Vitamin D	25 mcg. (1000 units)
Thiamine Hydrochloride	10 mg.
Riboflavin	5 mg.
Nicotinamide	100 mg.
Pyridoxine Hydrochloride	5 mg.
Cobalamin (Vitamin B_{12})	6 mcg.
Calcium Pantothenate	20 mg.
Ascorbic Acid	200 mg.

Optilets-M®

Each Filmtab represents all the vitamins of Optilets plus the following:

Iron (as sulfate)	10 mg.
Copper (as sulfate)	1 mg.
Iodine (as calcium iodate)	0.15 mg.
Cobalt (as sulfate)	0.1 mg.
Manganese (as sulfate)	1 mg.
Magnesium (as oxide)	5 mg.
Zinc (as sulfate)	1.5 mg.
Molybdenum (as sodium molybdate)	0.2 mg.

AB-T-M-A EO TAB ETS, ABBOTT 201071



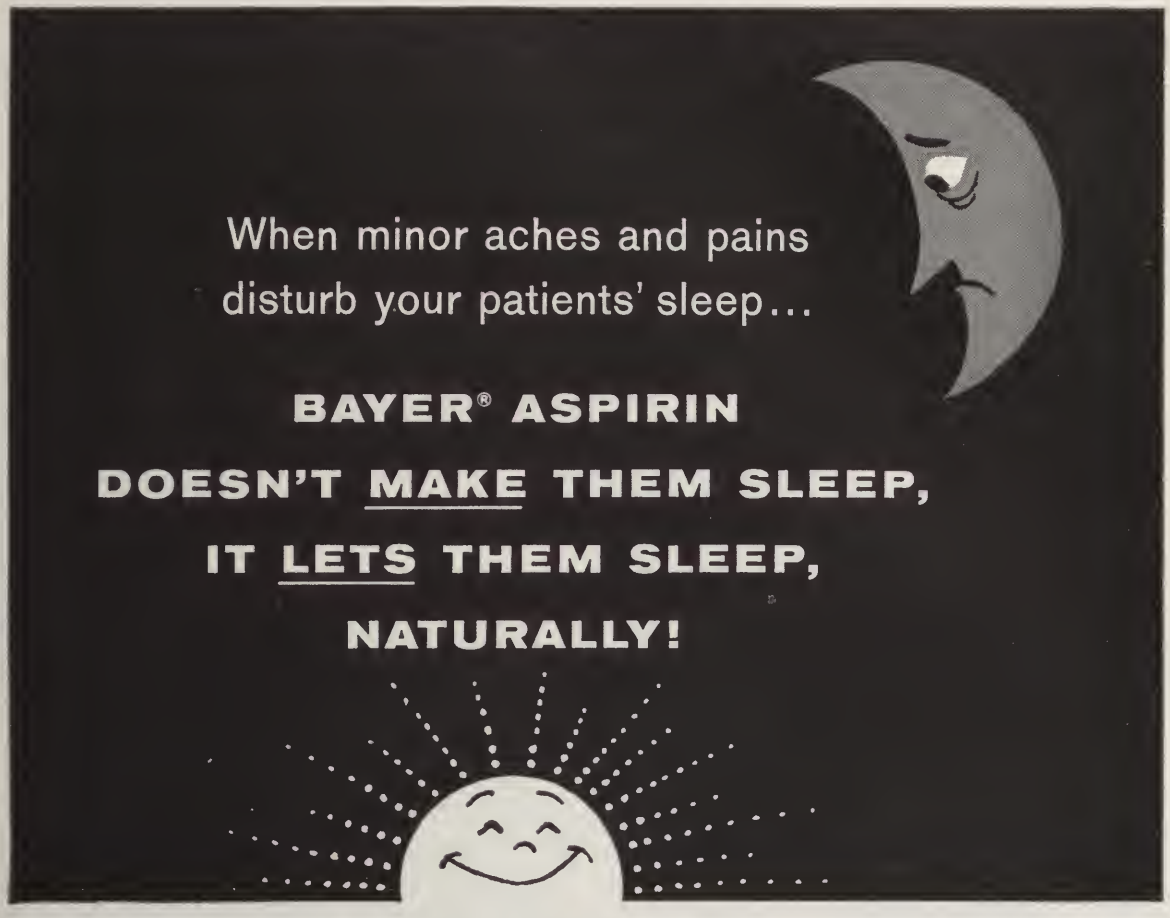
...you can bet they're not from Abbott

Vitamin products generally taste fine going down, but regurgitative effects may often be downright unpleasant. While this seems like a minor problem, bad aftertaste can discourage patients from continuing needed medication ■ Filmtab coatings guard against this possibility. Vitamin repeat is brought to a minimum. Unpleasant odors and aftertastes are effectively sealed inside the Filmtab. Tablets are also *much* easier to take as they can be up to 30% smaller in size. Bulky sugar coatings have been eliminated and breakage and cracking are less likely ■ As for stability—it's enhanced! No water is used in Abbott's Filmtab coating process. Chances of moisture degradation are virtually eliminated ■ When you recommend Abbott vitamins, Doctor, patients get the potency they pay for—today, tomorrow, a year from now.

ABBOTT

Filmtab® vitamins by Abbott: Dayalets® / Dayalets-M® / Optilets / Optilets-M® / Sur-Bex® with C / Surbex T®

FILMTAB — FILM-SEALED TABLETS, ABBOTT. 202076



AND WITH BAYER ASPIRIN,
THERE'S NO
"SEDATIVE HANGOVER."

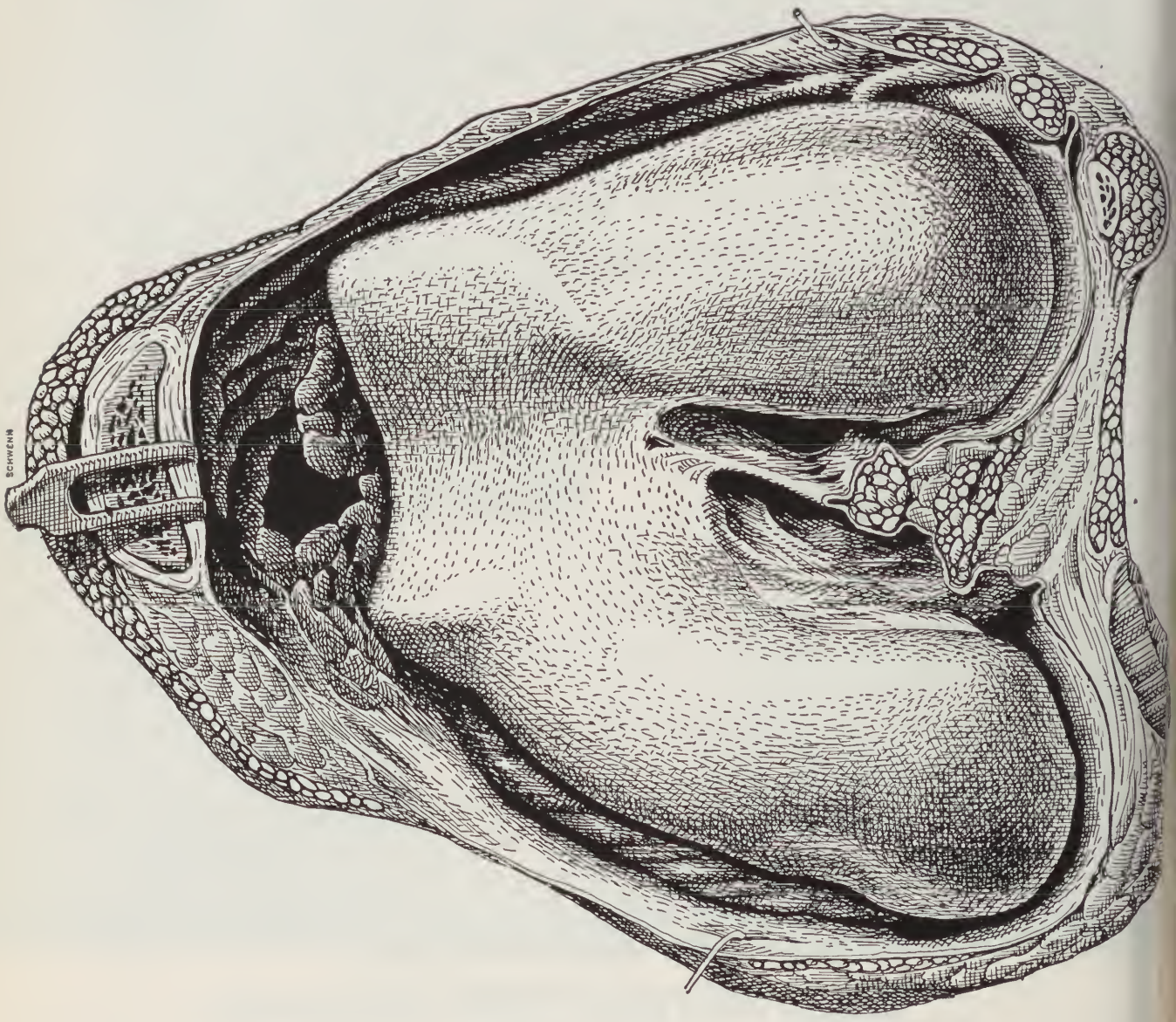
There are, of course, a great many instances of sleeplessness in which the patient should be directed to take a sedative to induce sleep.

But there are also many instances in which sleeplessness is caused by nothing more serious than minor aches and pains which can easily be relieved by one or two tablets of Bayer Aspirin. With physical discomforts gone, sleep comes naturally.

And when Bayer Aspirin is used as a sleeping aid, patients never suffer the "sedative hangover" which so often follows an induced sleep.

So remember, when minor aches and pains disturb your patients' sleep, Bayer Aspirin doesn't make them sleep; it lets them sleep, naturally, with no "sedative hangover."





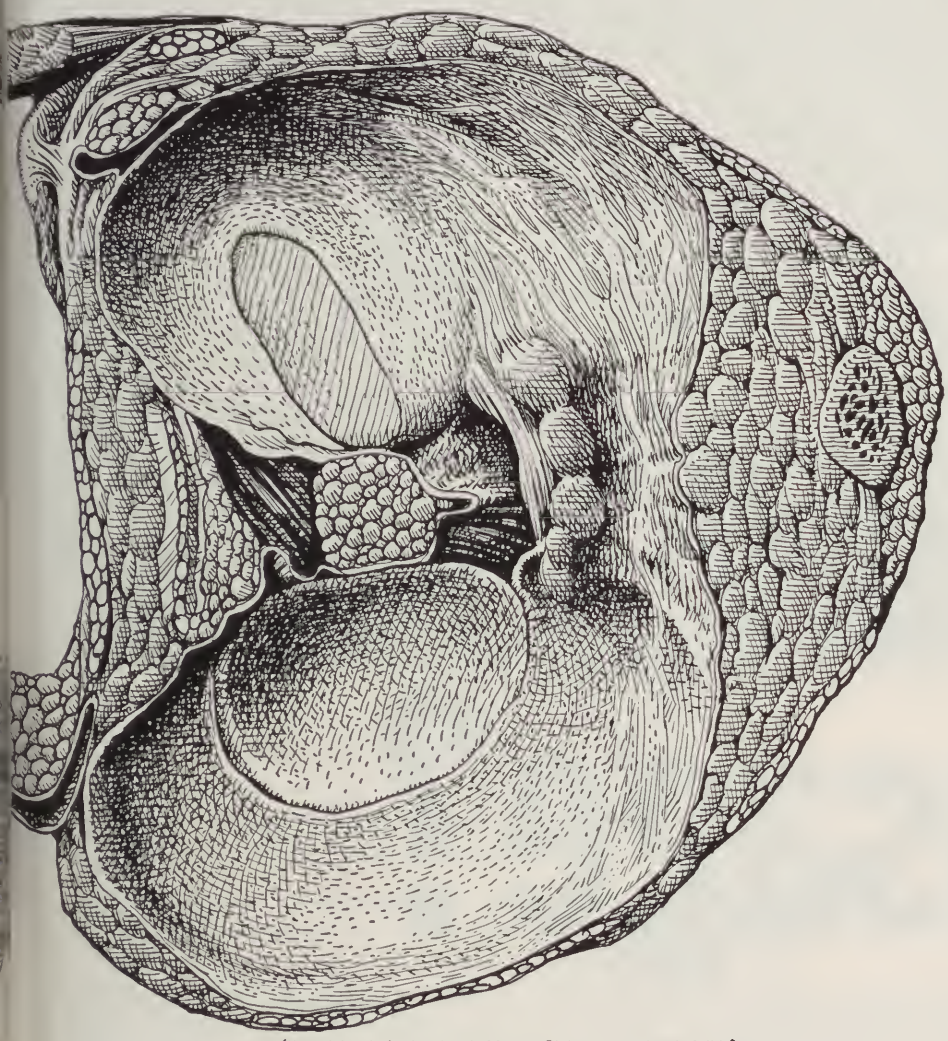
because patients are more than arthritic joints... controlling inflammatory symptoms is frequently not enough

Even cortisone, with its severe hormonal reactions, can effectively control inflammatory and rheumatoid symptoms. But a patient is more than the sum of his parts – and the joint is only part of a whole patient. Symptomatic control is but one aspect of modern corticotherapy, because what is good for the symptom may also be bad for the patient.

Unsurpassed "General Purpose" and "Special Purpose" Corticosteroid...
Outstanding for Short- and Long-term Therapy

Aristocort®

Triamcinolone Lederle



(Knee Joint, Left: distal end of femur; Right: proximal end of tibia)

ARISTOCORT is an outstanding "special purpose" steroid when the complicating problem is increased appetite and weight gain, sodium retention and edema, cardiac disease, hypertension or emotional disturbance and insomnia.

ARISTOCORT provides unsurpassed anti-inflammatory control without sodium retention or edema — without the undesirable psychic stimulation and voracious appetite.

Supplied: Scored tablets (three strengths), syrup, parenteral and various topical forms. Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

Lederle LEDERLE LABORATORIES · A Division of AMERICAN CYANAMID COMPANY · Pearl River, New York



sausage? a problem for your gallbladder patient

For gallbladder patients Entozyme may provide significant relief from the discomforts of fat-induced indigestion. Just six Entozyme tablets (the usual daily dose) digest sixty grams of fat—or more. That's as much as 50 to 90% of the normal daily intake of average adults.

The reason for Entozyme's fat-digestion potency is that each tablet contains 150 mg. of Bile Salts and 300 mg. of Pancreatin, N.F. (in an enteric coating). Bile Salts stimulate the flow of bile and enhance the lipolytic activity of both Entozyme's Pancreatin and the patient's own lipase. Together Bile Salts and Pancreatin greatly aid the emulsification and transport of fat.

Entozyme also contains Pepsin, N.F., 250 mg., which facilitates the breakdown of protein.

A. H. Robins Company, Inc., Richmond 20, Virginia

entozyme® a natural digestive supplement



Calms the Tense, Nervous Patient

in anxiety and depression

The outstanding effectiveness and safety with which Miltown calms tension and nervousness has been clinically authenticated by thousands of physicians during the past six years. This, undoubtedly, is one reason why meprobamate is still the most widely prescribed tranquilizer in the world.

Its response is predictable. It will not produce unpleasant surprises for either the patient or the physician. Small wonder that many physicians have awarded Miltown the status of a proven, dependable friend.

Miltown®
meprobamate (Wallace)

Usual dosage: One or two 400 mg. tablets t.i.d.
Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50. Also as MEPROTABS®—400 mg. *unmarked*, coated tablets; and in *sustained-release* capsules as MEPROSPAN®-400 and MEPROSPAN®-200 (containing respectively 400 mg. and 200 mg. meprobamate).

WALLACE LABORATORIES
Cranbury, N. J.

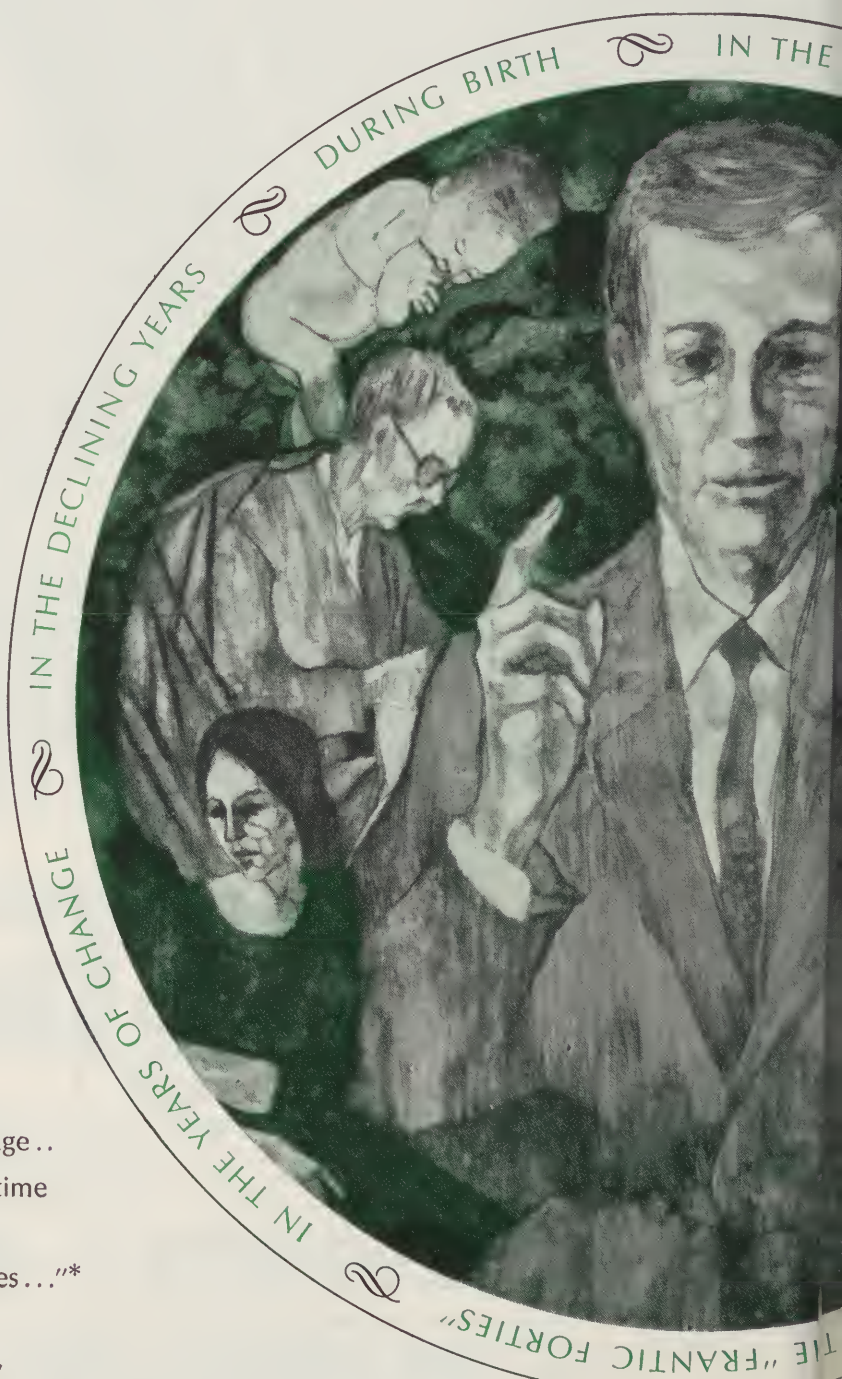
CM-5644

Clinically proven in over 750 published studies

1 Acts dependably — without causing ataxia or altering sexual function

2 Does not produce Parkinson-like symptoms, liver damage or agranulocytosis

3 Does not muddle the mind or affect normal behavior



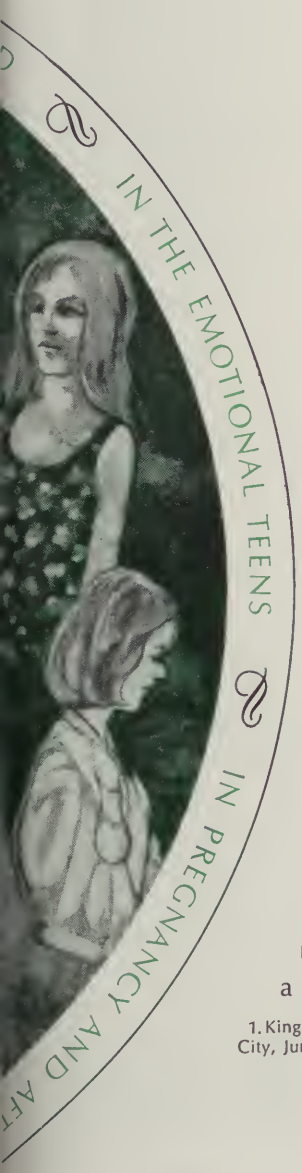
"All the world's a stage..
And one man in his time
plays many parts,
His acts being seven ages..."*

*As You Like It, Act II, Sc. 7

through all seven ages of man

VISTARIL®

effective anxiety control with a wide margin of safety



in the "frantic forties"—For many patients in their "frantic forties," the pace never slackens—may even accelerate—while tensions multiply and physical resources dwindle. Out of this seedbed of stresses and anxieties grow much of the alcoholism, psychosomatic illness, and sympathetic overactivity of the middle years.

In each of these areas, VISTARIL is often effective alone or as an adjunct to other therapy. For example, in his series of 67 patients, King[1] found that 62 showed remission of anxiety, tension, nervousness and insomnia, as well as alleviation of symptoms associated with various functional and psychophysiological disturbances. He concludes that VISTARIL is well suited for use in the practice of internal medicine.

In the emergent situation, VISTARIL, administered parenterally, is a valuable aid to the physician in managing patients who escape psychic conflict via alcohol. According to Weiner and Bockman,[2] who obtained beneficial results in 81% of 175 patients studied, hydroxyzine (VISTARIL) may well be considered a tranquilizer of choice in the management of the acutely agitated alcoholic.

1. King, J. C.: Int. Rec. Med. 172:669, 1959. 2. Weiner, L. J., and Bockman, A. A.: Sci. Exhibit, A.M.A., Ann. Meet., New York City, June 26-30, 1961.

VISTARIL® CAPSULES AND ORAL SUSPENSION
HYDROXYZINE PAMOATE

VISTARIL® PARENTERAL SOLUTION
HYDROXYZINE HYDROCHLORIDE

Science for the world's well-being® Pfizer PFIZER LABORATORIES
Division, Chas. Pfizer & Co., Inc.
New York 17, New York

See "IN BRIEF" on the next page

IN BRIEF

VISTARIL®

VISTARIL, hydroxyzine pamoate (oral) and hydroxyzine hydrochloride (parenteral solution), is a calming agent unrelated chemically to phenothiazine, reserpine, and meprobamate.

VISTARIL acts rapidly in the symptomatic treatment of a variety of neuroses and other emotional disturbances manifested by anxiety, apprehension, or fear—whether occurring alone or complicating a physical illness. The versatility of VISTARIL in clinical indications is matched by wide patient range and a complete complement of dosage forms. The calmative effect of VISTARIL does not usually impair discrimination. No toxicity has been reported with the use of VISTARIL at the recommended dosage, and it has a remarkable record of freedom from adverse reactions.

INDICATIONS: VISTARIL is effective in premenstrual tension, the menopausal syndrome, tension headaches, alcoholic agitation, dentistry, and as an adjunct to psychotherapy. It is recommended for the management of anxiety associated with organic disturbances, such as digestive disorders, asthma, and dermatoses. Pediatric behavior problems and the emotional illnesses of senility are also effectively treated with VISTARIL.

ADMINISTRATION AND DOSAGE: Dosage varies with the state and response of each patient, rather than with weight, and should be individualized for optimum results. The usual adult oral dose ranges from 25 mg. t.i.d. to 100 mg. q.i.d. Usual children's oral dose: under 6 years, 50 mg. daily in divided doses; over 6 years, 50-100 mg. daily in divided doses.

Parenteral dosage for adult psychiatric and emotional emergencies, including acute alcoholism: I.M.—50-100 mg. Stat., and q.4-6h., p.r.n. I.V.—50 mg. Stat., maintain with 25-50 mg. I.V. q.4-6h., p.r.n.

SIDE EFFECTS: Drowsiness may occur in some patients; if so, it is usually transitory, disappearing within a few days of continued therapy or upon reduction of dosage. Dryness of mouth may be encountered at higher doses.

PRECAUTIONS: Drowsiness may occur in some patients. The potentiating action of hydroxyzine should be taken into account when the drug is used in conjunction with central nervous system depressants. Do not exceed 1 cc. per minute I.V. Do not give over 100 mg. per dose I.V. Parenteral therapy is usually for 24-48 hours, except when, in the judgment of the physician, longer-term therapy by this route is desirable.

SUPPLIED: VISTARIL *Parenteral Solution* (hydroxyzine hydrochloride)—10 cc. vials, 25 mg. per cc. and 50 mg. per cc.; 2 cc. ampules, 50 mg. per cc. VISTARIL *Capsules* (hydroxyzine pamoate)—25, 50, and 100 mg. VISTARIL *Oral Suspension* (hydroxyzine pamoate)—25 mg. per 5 cc. teaspoonful.

More detailed professional information available on request.

Science for the world's well-being®

Pfizer PFIZER LABORATORIES
Division, Chas. Pfizer & Co., Inc.
New York 17, New York

Burdick



DIRECTED, DEEP-TISSUE HEATING WITH THE MW-1 MICROWAVE UNIT

The MW-1's simplicity of operation and ease of electrode application have contributed much to the popularity of microwave diathermy. Microwave radiations can be reflected, focused and directed. Treatment intensities may be preset.
Write us for descriptive literature and complete price information.

KAY SURGICAL INC.
663 North State St. • Jackson, Miss.



Protection Against Loss of Income From Accident and Sickness as Well as Hospital Expense Benefits for You and All Your Eligible Dependents.

ALL PREMIUMS COME FROM PHYSICIANS SURGEONS DENTISTS ALL BENEFITS GO TO

PHYSICIANS CASUALTY & HEALTH ASSOCIATIONS
OMAHA 31, NEBRASKA
Since 1902

Handsome Professional Appointment Book sent to you FREE upon request.

NEWSLETTER

MISSISSIPPI STATE MEDICAL ASSOCIATION
JACKSON, MISSISSIPPI

March 1962

Dear Doctor:

For the first time in history, Mississippi has an "ability-to-pay" law which applies to all state institutional services for the indigent sick. Measure passed House 84 to 40 after stormy debate but was quietly adopted by Senate. Under a newly created Hospital Reimbursement Commission, state may collect some or even all charity care costs under income formula or as result of welfare investigation.

> New commission will be staffed by paid executive and work closely with all state medically related institutions. Members will all be ex officio, heads of public welfare, public health, the four charity hospitals, University hospital, mental institution, and cerebral palsy hospital school.

Harry J. Anslinger, U. S. Commissioner of Narcotics since 1930, retires at mandatory age 70 soon. Congressmen recently praised Anslinger's outstanding record of public service, devotion to duty, and success in combatting illicit narcotics traffic.

AFL-CIO's Committee on Political Education will kick off a series of 14 regional conferences on legislation and 1962 elections this month. Mississippi will fall in New Orleans area meeting March 15-16. High on agenda are King-Anderson bill, repeal of right-to-work laws, and more labor-liberal congressmen, all of which COPE favors.

AMA President Leonard W. Larson says Saturday Evening Post's February 3 editorial, "The Doctors and the AMA," was "...packed with errors of fact." AMA and several state associations have castigated Post Editor Robert Fouss (whose address is Curtis Publishing Co., Philadelphia 5, Pa.) for dragging out same tired old anti-physician drivel unworthy of a top magazine.

Two bills sponsored by Mississippians are pending before Congress to name new Jackson VA hospital for the late John E. Rankin. H.R. 9483 by Mr. Abernethy and Senate Joint Resolution 146 by Senators Stennis and Eastland formally seek designation of new facility as the John Elliott Rankin Memorial Veterans Hospital. Legislature unanimously passed similar acts as memorial to Congress.

Sincerely,

Rowland B. Kennedy
Executive Secretary

DATELINE - MEDICAL AMERICA

Mississippi Congressmen Nix AMA's 'Bricks And Mortar' Bill

Washington - All Mississippi congressmen present and voting turned thumbs down on H.R. 8900, the College Academic Facilities Act, providing federal funds for construction of medical and other institutions of higher learning. MSMA and AMA parted company on bill with state association opposing it. AMA testified in favor. Although the bill passed 319 to 79, Reps. Abernethy, Whitten, Williams, and Winstead voted "nay." Reps. Colmer and Smith were absent but, significantly, not paired for the bill.

Space Medicine Looms As Major Activity

New York - Stock exchange members are getting excited over the term "bioastronautics" and have the word out that $1 out of every $10 spent on space program will be for medical services or research. Move is on for new investment in private medicine and man-on-moon program will spend $4 billion alone in medical research. National Space Council is surveying available sources for needed medical knowhow and a new Washington newsletter, "Bioastronautics," has already been launched.

'Crazy Dream' Materializes In Children's Research Hospital

Memphis - Comedian Danny Thomas dedicated the hospital last month he started as a "crazy dream" and largely financed, the St. Jude at Memphis. Since 1937, the TV funnyman who jokes about the size of his Lebanese nose has made charity appearances in behalf of the project, even paying his own expenses. The institution will conduct research in children's diseases, with emphasis on leukemia.

Civil Air Surgeon Moves Headquarters To Midwest

Oklahoma City - FAA Administrator N. E. Halaby announced relocation of the Office of the Civil Air Surgeon in Oklahoma City. Since organization, the FAA medical activity has been headquartered in Washington. Move will include Dr. James L. Goddard's medical staff and sections on research, medical certification, and medical standards.

AMA Study Piques Chiropractors

Chicago - A survey on chiropractors by AMA last year has "drawn blood," in the words of medical officials. The National Chiropractic Association is now engaged in making a "...critical survey of medical practices" in U.S. Gist of survey form is on M.D.'s consulting chiropractors, malpractice, deaths "caused by dangerous or untested drugs," and similar hogwash. Copies of NCA survey may be obtained - for curiosity purposes - from AMA Department of Investigation, Chicago.

AMID LABORATORIES
INCORPORATED

PHENIHIST

ANTIHISTAMINIC—VASOCONSTRICTOR

Each Prolonged Action Press-Coated Tablet Contains:

Phenylephrine HCL	10 Mg.
Pyrilamine Maleate	16 Mg.
Chloropheniramine Maleate	2 Mg.
Phenindamine Tartrate	10 Mg.

PHENIHIST press-coated tablets are so construed with special materials to provide in the **OUTER LAYER** a therapeutic dose for immediate release and in the **INNER CORE** the remaining medication which is gradually released over an extended period to provide a prolonged therapeutic effect for 10 to 12 hours.

PHENIHIST is indicated for the relief of upper respiratory and nasal congestion associated with common cold, sinusitis, rhinitis, nasopharyngitis, rhinorrhea, and congestion associated with hay fever and other allergies.

PRECAUTIONS Individuals with high blood pressure, heart disease, diabetes or thyroid conditions should use only as directed by physician. If drowsiness results, do not drive or operate machinery. Do not give to children under 6 years of age or exceed the recommended dosage.

DOSAGE

ADULT: Orally 1 tablet upon rising and 1 tablet 12 hours later.

CHILDREN: Do not give to children under 6 years of age.

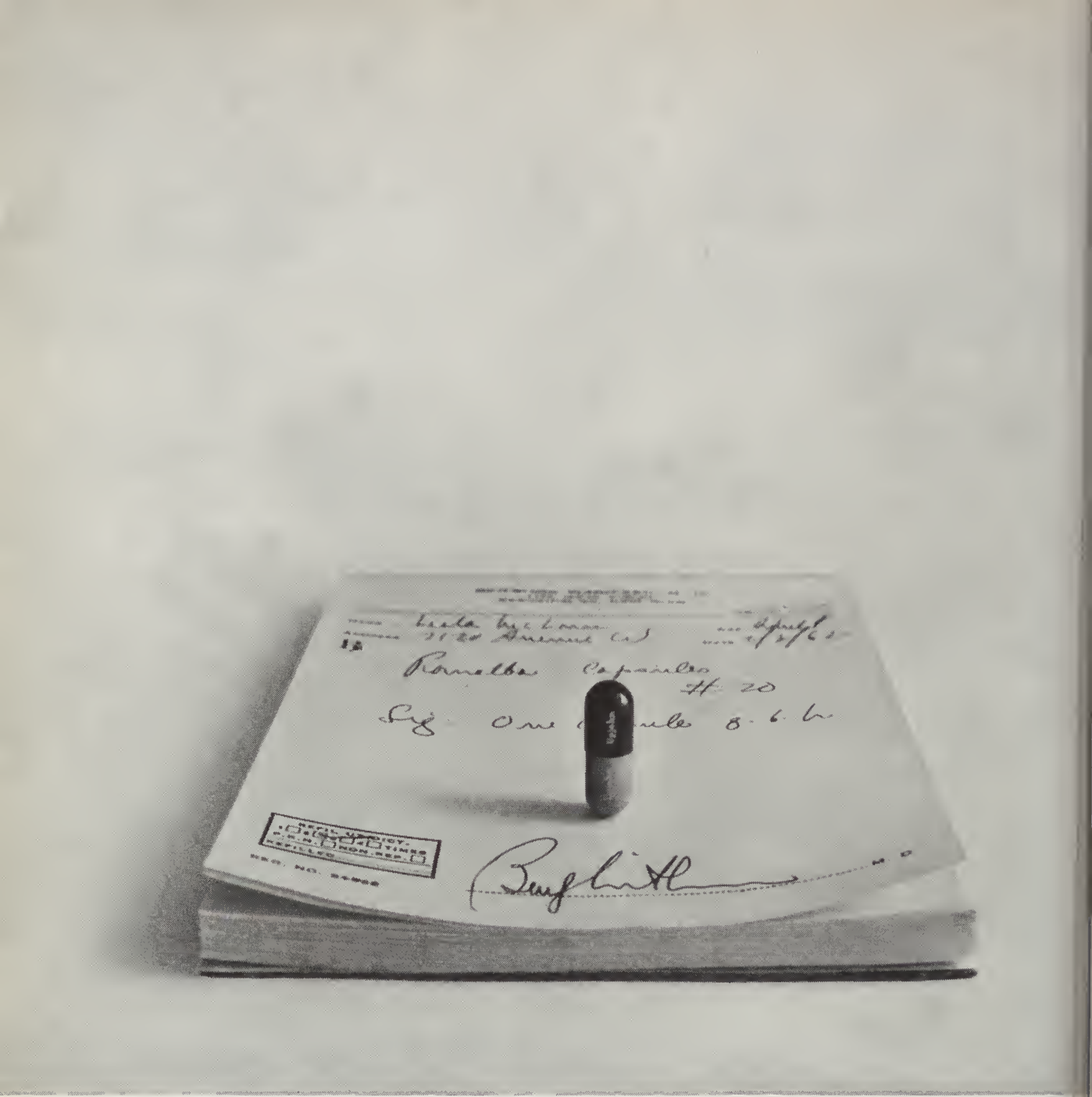
PHENIHIST is supplied in bottles of 100 tablets.

Producers of Pharmaceuticals of Highest Standards of Quality

AMID LABORATORIES
INCORPORATED

490 E. WOODROW WILSON AVE. JACKSON, MISS.

A SUBSIDIARY OF MISSISSIPPI INDUSTRIES, INC.



Launching Pad

In infections of unknown etiology, prescribe Panalba. From the outset, pending laboratory determinations, your treatment is broadened in antibacterial coverage because of the simultaneous administration of two antibiotics that complement each other. They were carefully chosen for this purpose.

Panalba combines tetracycline (selected for its breadth of coverage) and novobiocin (selected for its unique effectiveness against staph). That is why, in most infections of unknown etiology, Panalba offers excellent chances for therapeutic success— and why it should be your antibiotic of first resort.

Upjohn
The Upjohn Company
Kalamazoo, Michigan

Panalba* product information

Supplied: Capsules, each containing Panmycin* Phosphate (tetracycline phosphate complex), equivalent to 250 mg. tetracycline hydrochloride, and 125 mg. Albamycin,* as novobiocin sodium, in bottles of 16 and 100.

Usual Adult Dosage: 1 or 2 capsules three or four times a day.

Side Effects: Panmycin Phosphate is well tolerated clinically and has a very low order of toxicity comparable to that of the other tetracyclines. Side reactions are infrequent and consist principally of mild nausea and abdominal cramps.

Leukopenia has occurred occasionally in patients receiving novobiocin. Rarely, other blood dyscrasias including anemia, pancytopenia, agranulocytosis and thrombocytopenia have been reported. In a recent report it was observed that three times as many newborn infants receiving novobiocin developed jaundice as control infants. For this reason, administration of novobiocin to newborn and young infants is not recommended, unless indication is extremely urgent because of serious infections not susceptible to other antibacterial agents.

The development of jaundice has also been reported in older individuals receiving Albamycin. Serious liver damage has developed in a few patients, which was more likely related to the underlying disease than to therapy with novobiocin. Although reports such as the above are rare, discontinuance of novobiocin is indicated if jaundice develops. If continued therapy appears essential because of a serious infection due to microorganisms resistant to other antibacterial agents, liver function tests and blood studies should be performed frequently, and therapy with novobiocin stopped if necessary.

In a certain few patients treated with this agent, a yellow pigment has been found in the plasma. The nature of this pigment has not been defined. There is evidence that it may be a metabolic by-product of novobiocin, since it has been reported to be extractable from the plasma (pH 7 to 8.1) with chloroform while bilirubin is not. These properties have been employed to differentiate the yellow pigment due to the metabolic by-product of novobiocin and bilirubin. However, recent reports indicate that this method of differentiation may be unreliable.

Urticaria and maculopapular dermatitis have been reported in a significant percentage of patients treated with Albamycin. Upon discontinuance of the drug, these skin reactions rapidly disappeared.

Warning: Since Albamycin possesses a significant index of sensitization, appropriate precautions should be taken in administering the drug. If allergic reactions develop during treatment and are not readily controlled by antihistaminic agents, use of the product should be discontinued.

Total and differential blood cell counts should be made routinely during the administration of Albamycin. If new infections appear during therapy, appropriate measures should be taken; constant observation of the patient is essential. If a yellow pigment appears in the plasma, administration of the drug should be continued only in urgent cases, and the patient's condition closely followed by frequent liver function tests. In case of the development of liver dysfunction, therapy with this agent should be stopped.

*TRADEMARK, REG. U. S. PAT. OFF.

COPYRIGHT 1961, THE UPJOHN COMPANY DECEMBER, 1961

Control Constipation Without Interference

PRULET®



A MILD REFLEX ACTING LAXATIVE . . .

does not interfere with other conditions under treatment.

The active ingredient of Prulet,® Bis(p-acetoxyphenyl) -oxindole, is analogous to a substance found in prunes. Completely recoverable from the feces, it has no deleterious effect on the vital organs. It is completely free from side effects, such as coloring of the urine, hyperemia and flatulence. During lactation no portion of the active ingredient of Prulet® appears in the milk and it has no effect on the nursing infant.

PRULET®. . .

provides therapeutic effectiveness with milligram dosage.

EASY TO TAKE: Prulet® tablets are small, odorless, and tasteless.

SUPPLIED: Bottles of 60.

EACH TABLET CONTAINS:
Bis (p-acetoxyphenyl)-oxindole . . . 5 mg

DOSAGE: One or two tablets before retiring until regularity is achieved or as directed by a physician.

PRECAUTIONS: Presence of nausea, vomiting, abdominal pains, or other symptoms of appendicitis.

COMPLETE LITERATURE AND SAMPLES UPON REQUEST

Mission Pharmacal Co.
SAN ANTONIO 6, TEXAS

PR-61

...WITH 'METHEDRINE' SHE CAN HAPPILY REFUSE!



Controls food craving, keeps the reducer happy — In obesity, "our drug of choice has been methedrine . . . because it produces the same central effect with about one-half the dose required with plain amphetamine, because the effect is more prolonged, and because undesirable peripheral effects are significantly minimized or entirely absent." Douglas, H. S.: West.J.Surg. 59:238 (May) 1951.

'METHEDRINE'®

brand Methamphetamine Hydrochloride

Supplied: Tablets 5 mg., scored. Bottles of 100 and 1000.

Literature available on request.

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York

a
major achievement
in the convenience
of intramuscular
antibiotic therapy

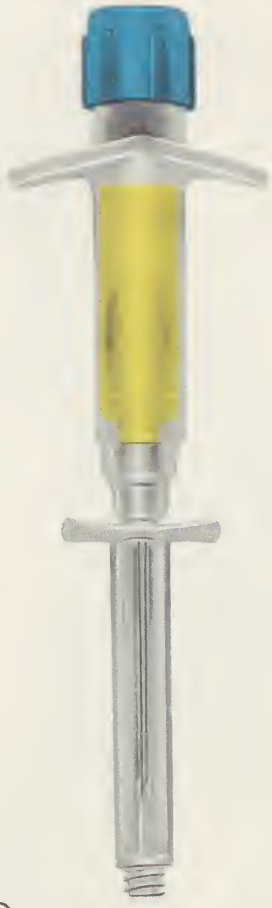
Terramycin® Isoject™

oxytetracycline for intramuscular injection, ready to use in sterile syringe with sharp, sterile needle — all in one integrated, entirely disposable unit

completely
sealed to prevent syringe-transmitted hepatitis/
ready-to-use/tamper-proof/
disposable...and
surprisingly economical

Pfizer *Science for the world's well-being®*





a major achievement in the convenience of intramuscular antibiotic therapy

Terramycin® Isoject™

provides the benefits of Terramycin Intramuscular Solution: rapid effectiveness against a broad range of pathogens; rapid, wide distribution in body tissues and fluids; excellent toleration

plus ... all the advantages of the ISOJECT unit:

convenient completely self-contained/no intricate assembly/no chance of lost parts

sterile and completely disposable prevents syringe-transmitted hepatitis

economical compares very favorably in cost with less convenient and practical forms — and reduces likelihood of breakage and waste

tamper-proof unit is safely sealed

presently available ISOJECT forms:
Terramycin® Intramuscular Solution — 100 and 250 mg.
Vistaril® Parenteral Solution — 25 and 50 mg.
Streptomycin Sulfate Solution — 1 Gm.

IN BRIEF

The dependability of Terramycin in daily practice is based on its broad range of antimicrobial effectiveness, excellent toleration, and low order of toxicity. As with other broad-spectrum antibiotics, overgrowth of nonsusceptible organisms may develop. If this occurs, discontinue the medication and institute appropriate specific therapy as indicated by susceptibility testing. Glossitis and allergic reactions to Terramycin are rare. As with all I.M. preparations, injection should be made within the body of a relatively large muscle. Care should always be taken to avoid injection into a major nerve or its surrounding sheath. For complete dosage, administration, and precaution information, read package insert before using. Terramycin Intramuscular Solution contains 2% (W/V) Xylocaine.*

More detailed professional information available on request.

*Xylocaine® is the registered trademark of Astra Pharmaceutical Products, Inc., for its brand of lidocaine.

Science for the world's well-being® Pfizer PFIZER LABORATORIES Division, Chas. Pfizer & Co., Inc. New York 17, N. Y.



Cooking with herbs spices up a patient's diet

How to help your patient stick to a low sodium diet

The secret ingredient in a successful diet is acceptance. Dishes that are low in sodium can gain flavor and appetite appeal from a variety of other herbs and seasonings. Broiled hamburger, for instance, tastes delicious when it's seasoned with thyme, marjoram and pepper. Rosemary, lemon and sweet butter turn broiled chicken into an elegant main dish. In fact, sweet butter can be used many ways —with tarragon on carrots, nutmeg on beans, oregano on tomatoes, savory on limas. Dieters find onions boiled with thyme have a delicious new flavor.

United States Brewers Association, Inc.

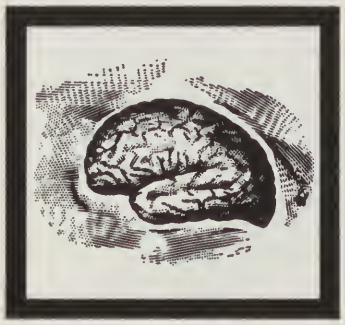
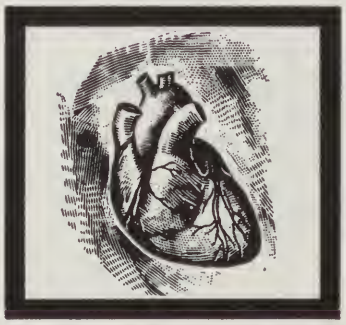
For reprints of this and 11 other diet menus, write us at 535 Fifth Avenue, N.Y. 17, N.Y.



A glass of beer can add zest to a patient's diet

Sodium 7 mg/100 grm.
17 mg/8 oz. glass
(Average of American Beers)

4 essential actions in one Rx: to bring most hypertensive patients under control



• **central action** inhibits sympathetic vasoconstrictor impulses, improves cerebral vascular tone

• **renal action** increases renal blood flow as well as urine volume and sodium and chloride excretion

• **cardiac action** prolongs diastole, decreases heart rate and cardiac output, thus easing strain on the myocardium

• **vascular action** blocks effects of pressor substances, enables blood vessels to dilate more fully

Supplied: SER-AP-ES Tablets (salmon pink), each containing 0.1 mg. Serpasil, 25 mg. Apresoline hydrochloride, and 15 mg. Esidrix.

For complete information about Ser-Ap-Es (including dosage, cautions, and side effects), see current Physicians' Desk Reference or write CIBA, Summit, New Jersey.

SERPASIL® (reserpine CIBA)
APRESOLINE® hydrochloride (hydralazine hydrochloride CIBA)
ESIDRIX® (hydrochlorothiazide CIBA) 2/3002HB

Most hypertensive patients need more than one drug...but most hypertensive patients need only one Rx: SER-AP-ES®

CIBA Summit, New Jersey

Schering



when "flu" strikes

relieve U.R.I. distress rapidly

- *relieve sneezing, runny nose*
- *ease aches and pains*
- *lift depressed feelings*
- *reduce fever, chills*

For complete details, consult latest Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Bloomfield, N. J.

Rx CORIFORTE®

(Brand of Analgesic-Antihistaminic-Antipyretic Compound)

capsules

Each CORIFORTE Capsule contains:

CHLOR-TRIMETON® (brand of chlorpheniramine maleate)	4 mg.
salicylamide	0.19 Gm.
phenacetin	0.13 Gm.
caffeine	30 mg.
methamphetamine hydrochloride	1.25 mg.
ascorbic acid	50 mg.

available on prescription only



an excellent drug

"Based both on laboratory studies and clinical impressions, it [Cordran] appears to be an excellent drug for the relief of cutaneous inflammation, possibly more effective than any steroid we have hitherto used."

—Rostenberg, A., Jr.: Clinical Evaluation of Flurandrenolone, a New Steroid, in Dermatological Practice, J. New Drugs, 1:118, 1961.

A look at the products

Cordran cream and ointment are new corticosteroid preparations especially formulated for the skin. Each Gm. contains 0.5 mg. Cordran.

Cordran™-N cream and ointment combine Cordran and the wide-spectrum antibiotic, neomycin. Each Gm. contains 0.5 mg. Cordran and 5 mg. neomycin sulfate (equivalent to 3.5 mg. base). Cordran-N is particularly useful in steroid-responsive dermatoses complicated by potential or actual skin infections.

All forms are supplied in 7.5 and 15-Gm. tubes.

Cordran™-N (flurandrenolone with neomycin sulfate, Lilly)

Product brochure available; write Eli Lilly and Company, Indianapolis 6, Indiana.

Lilly

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature.

240207

JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION
March, 1962, Vol. III, No. 3

ORIGINAL PAPERS

Antihypertensive Drugs: A Controlled Evaluation

RAYMOND F. GRENFELL, M.D., ARTHUR H. BRIGGS, M.D., and WILLIAM C. HOLLAND, M.D.

Jackson, Mississippi

In January 1956 a statistically analyzed, double-blind study was begun in hypertension. Seventy-four patients were given placebo and ergotoxine alkaloids intramuscularly. Seventy-two patients were given placebo and drugs orally. Parenteral placebo caused a decrease in systolic pressure for 59 weeks; parenteral drug caused a decrease for 47 weeks. There was a decrease in diastolic pressure for 143 weeks in parenteral drug and placebo groups. Oral placebo and dihydroergocornine caused no change in pressure. Oral ergotoxine alkaloids, reserpine, and a combination of rauwolfia, protoveratrine and phenoxybenzamine hydrochloride caused a decrease in systolic and diastolic pressure. Thioridazine decreased systolic but not diastolic pressure.

A CONTROLLED DOUBLE-BLIND PROJECT has been conducted at the University of Mississippi School of Medicine since January 1956.

With the continuation of this investigation the additional information that has been collected is being reported at this time.

MATERIALS AND METHODS

Only outpatients from the University of Mississippi Medical Center have been included.[1, 2, 3, 4] All patients are ambulatory and have been given no medication other than the drugs described in this manuscript. No dietary restriction has been placed on any patients. Those who had been receiving other drugs, such as digitalis and nitroglycerin, were made a part of the study. However, any patients who had a change in their physical status requiring medication other than that previously given have been dropped from the study. Any major medical or surgical complication which developed caused the patient to be omitted from the analysis of the data. To be included, it was necessary for the patient to have a blood pressure greater than 150/100 mm. Hg. for three or more weeks. Also, the patient had to be in Stage 1, 2 or 3, according to Schroeder's[5] classification.

Prior to inclusion in the study, each patient was given a physical examination. The laboratory studies included a complete blood count, serology, urinalysis, chest x-ray, and electrocardio-

From the Departments of Medicine and Pharmacology, University of Mississippi School of Medicine.
Read before the Section on Medicine, 93rd Annual Session, Mississippi State Medical Association, Biloxi, May 9-11, 1961.

gram. Determinations of the blood glucose, creatinine, nonprotein nitrogen, and phenolsulfonphthalein excretion were made. Phentolamine methanesulfonate (Regitine) was given intravenously as a screening procedure for pheochromocytoma.

A very important phase of this study has been the maintenance of the double-blind technique. In no instance has the nurse or any patient been aware of the nature of the substance being administered. No patients have been told their blood pressure at any time nor have they been told whether it is higher or lower than before treatment.

Two main groups of patients are considered in this study, those receiving intramuscular injections at two week intervals and those receiving an oral drug or placebo every week. At each visit to the clinic the blood pressure is taken three times at ten minute intervals with the patient in a seated position. The lowest reading for each visit is the one used in the analysis of the data.

In the parenteral group, 41 patients were given two groups of ampules containing physiological saline, and 33 patients were given two groups of ampules containing 0.1 mg. dihydroergocornine methanesulfonate, 0.1 mg. dihydroergokryptine methanesulfonate, and 0.1 mg. dihydroergocristine methanesulfonate (Hydergine). A dosage schedule previously used by one of us (R.F.G.) in treating an uncontrolled private patient series has been used in the clinic: three injections a week for two weeks; two injections a week for two weeks; one injection a week for two weeks; one injection every ten days for two injections, and one injection every two weeks as maintenance dosage.[6, 7]

Each oral substance was administered to 12 patients. The first group received one tablet of placebo three times a day for 12 weeks. The second group was given a mixture of the hydrogenated alkaloids of ergot containing 1.66 mg. dihydroergocornine methanesulfonate, 1.66 mg. dihydroergokryptine methanesulfonate, and 1.66 mg. dihydroergocristine methanesulfonate three times a day for 12 weeks. The third group took 5 mg. dihydroergocornine methanesulfonate three times a day for 12 weeks. The fourth group was given one tablet of reserpine (.25 mg. per tablet) twice daily for 12 weeks. The fifth group took one capsule containing 12.5 mg. rauwolfia, 0.1 mg. protoveratrine, 2.5 mg. phenoxybenzamine hydrochloride (Mio-Pressin) in increasing amounts. This strength was given three times a day in-

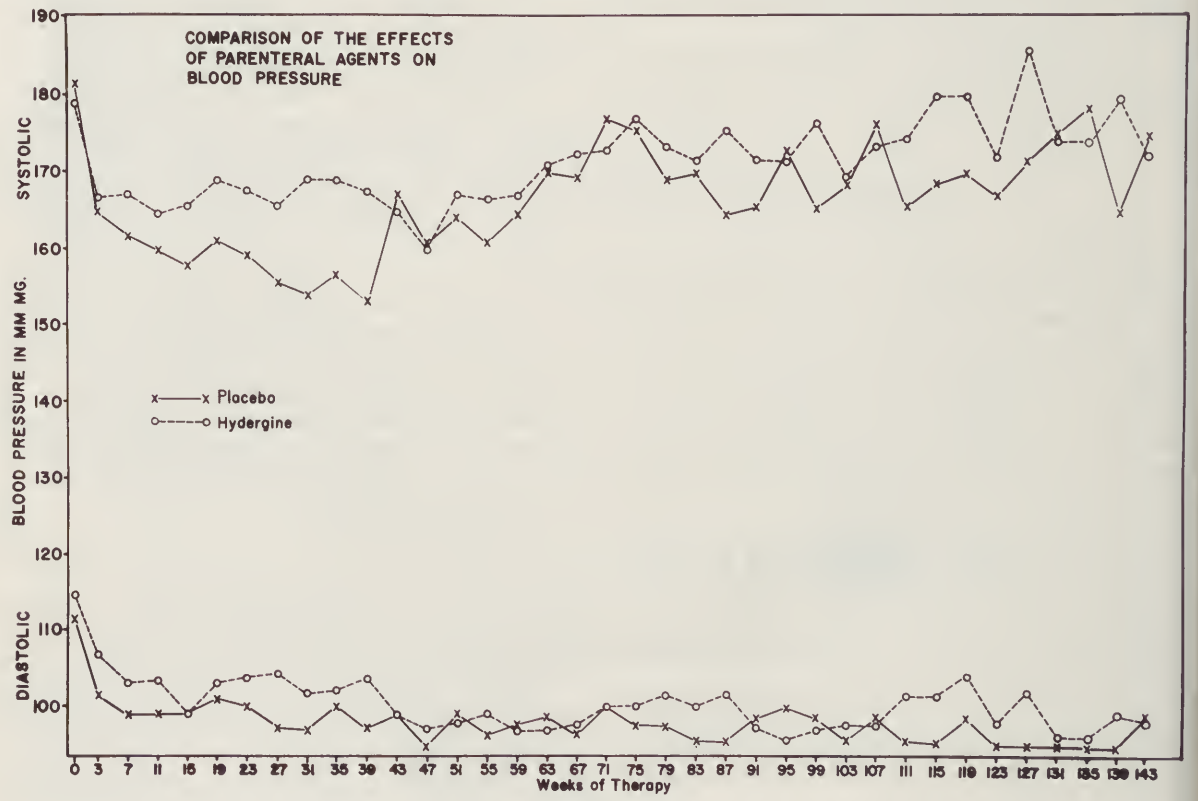


Figure 1

creasing the dose two capsules weekly until a total of seven were taken daily. Then one capsule of double the above strength (strength number 2) was given three times a day, increasing the dosage one capsule weekly until a total of 12 were given daily. The sixth group was given 10 mg. thioridazine (Mellaril) three times a day for 12 weeks.

The Hines cold pressor test was performed as Hines originally stated.[8] While supine, one hand was placed in ice water 37° to 41° F. (3° to 5° C.) to a line just above the wrist. With the sphygmomanometer cuff on the opposite arm, the blood pressure was taken at 30 and 60 seconds after immersion was begun. According to interpretation by Hines, an elevation above the basal level greater than 20 mm. Hg. in systolic blood pressure and greater than 15 mm. Hg. in diastolic blood pressure indicates a hyperreactive type of response.

All data obtained have been statistically analyzed. A p value of less than .05 was considered significant. The use of statistical analysis increases the validity of this study, for it means that the differences in the data could be due to chance alone in only five of one hundred patients.

With the most recent analysis, the parenteral group included 74 patients under treatment for periods ranging from 6 to 143 weeks (Figure 1). About one-half of this group have received physiological saline and one-half the drug. In general, all patients in the parenteral group have had an improvement in symptoms and a sense of well-being; a few complained of an increase in symptoms. This is not correlated with the blood pressure. The parenteral placebo group had a significant decrease in systolic blood pressure up to 59 weeks. This was followed by a rise in systolic blood pressure to a reading at 143 weeks neither significantly higher nor lower than the pretreatment blood pressure.

In those patients who received the hydrogenated alkaloids of ergot parenterally, there was a statistically significant decrease in the systolic blood pressure up to the 47th week. Following this, the systolic blood pressure increased to levels neither significantly higher nor lower than the pretreatment pressure and remained at this level to the 143rd week.

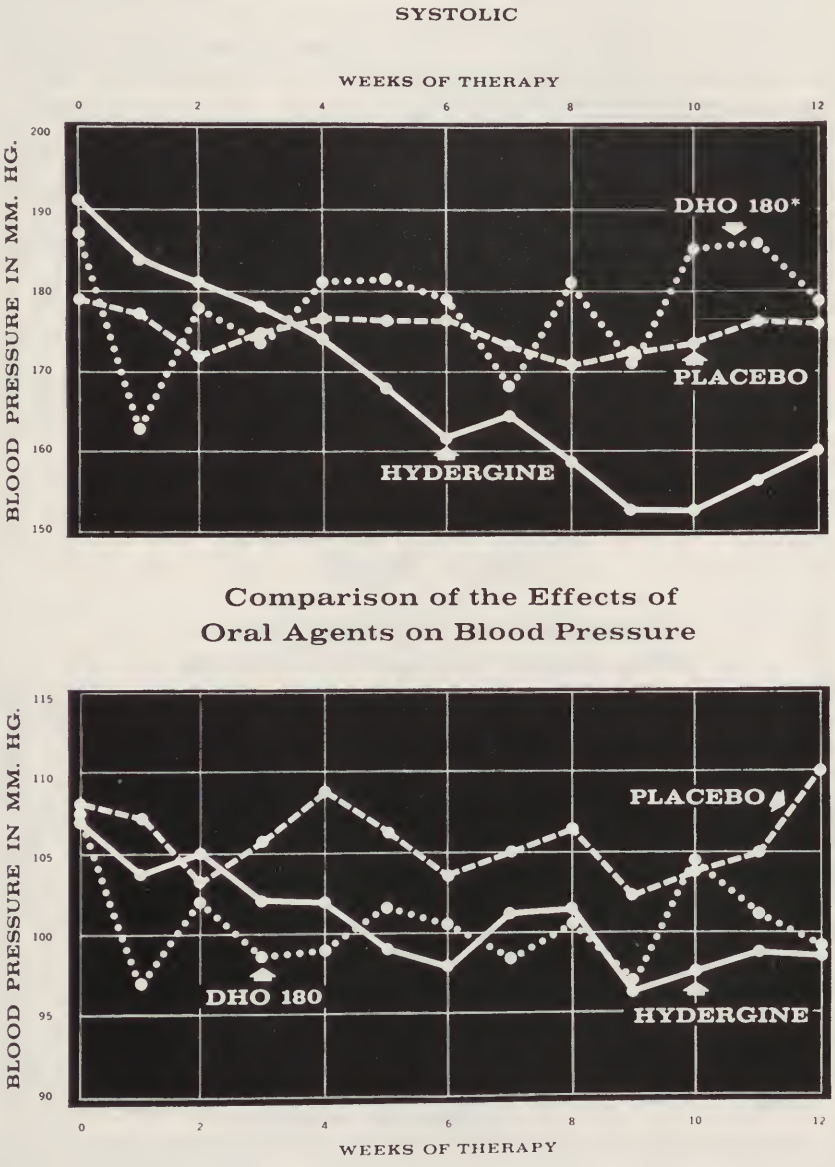


Figure 2

In all patients receiving parenteral therapy, whether drug or placebo, the diastolic blood pressure was significantly lower than in week 0 throughout the study to date (143 weeks).

No severe side effects were noted in any of the groups receiving oral substances. No patients requested the discontinuance of any medicine or placebo because of symptoms. In general, the improved sense of well-being noted in the parenteral groups was absent in these groups.

The oral placebo caused no significant change in systolic or diastolic blood pressure as compared with the blood pressure in week 0.

The group who received orally the hydrogenated alkaloids of ergot showed a significant persistent decrease in the systolic and diastolic blood pressure when compared to the blood pressure in week 0. However, there was no significant difference when compared to oral placebo except in week 7 in systolic blood pressure and week 12 in diastolic blood pressure.

In the third group, neither the systolic nor diastolic blood pressure was significantly lower following the administration of dihydroergocornine as compared with the pretreatment blood pressure (Figure 2).

Following the oral administration of reserpine there was a significant decrease in the systolic and diastolic blood pressure as compared to the blood pressure obtained in week 0. There was no significant difference between reserpine and the oral placebo except in week 4 in the diastolic blood pressure.

Following 13 weeks of administering the combination capsule (rauwolfia, protoveratrine, and phenoxybenzamine hydrochloride) there was a significant decrease in systolic blood pressure in all weeks except the first week and in diastolic blood pressure in all weeks compared to week 0. When compared to oral placebo, there was no significant difference except in weeks 7, 9, 10 and 11 in systolic blood pressure. However, there was a significant difference ($p<.01$) in the diastolic pressure in all weeks, except weeks 1 and 2 when compared to oral placebo (Figure 3).

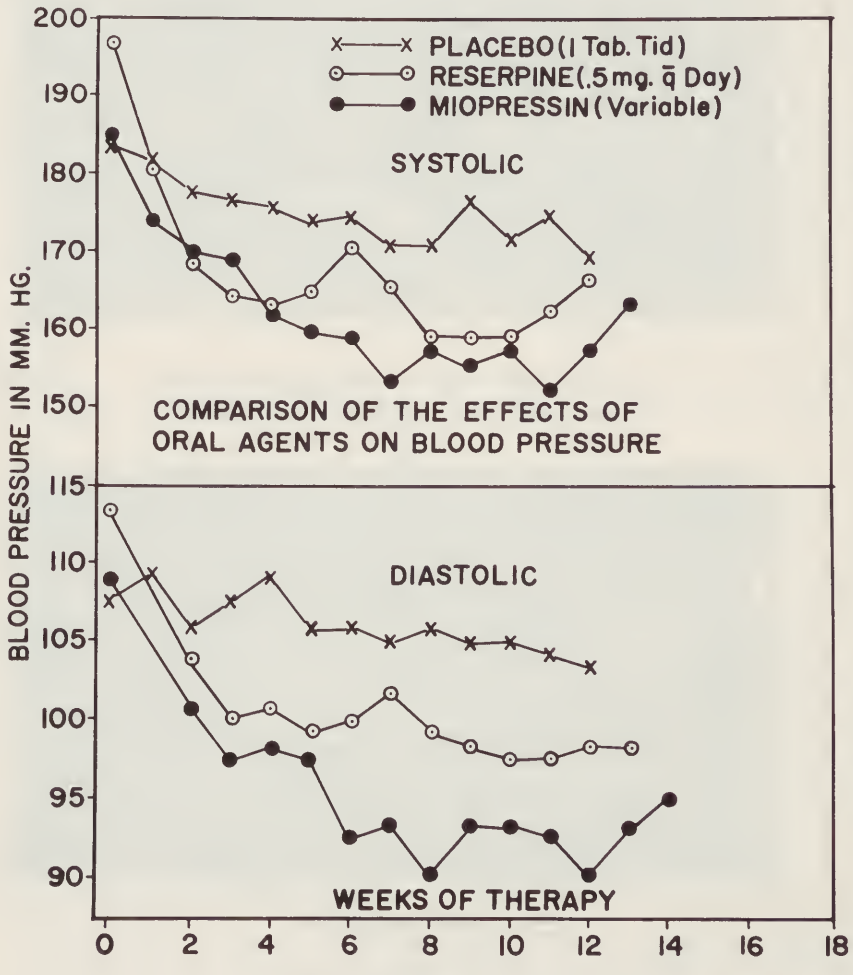


Figure 3

In those patients receiving thioridazine, the systolic blood pressure was significantly lower in all weeks when compared to week 0. The diastolic blood pressure with treatment was lower than the diastolic blood pressure in week 0 only in weeks 6 and 7. When compared to placebo, however, none of the readings of the systolic blood pressure was significantly lower and only in week 1 was the diastolic blood pressure significantly lower (Figure 4).

In the parenteral placebo group, the Hines cold pressor test showed a 34 mm. Hg. increase in the mean systolic pressure and a 16 mm. Hg.

increase in the mean diastolic blood pressure after 60 seconds. Those receiving the drug parenterally showed an increase in the mean blood pressure of 31 mm. Hg. systolic and 12 mm. Hg. diastolic. Thus, the parenteral placebo group remained as hyperreactors. This is in accord with the criterion established by Hines who stated that a patient who had an elevation above basal level greater than 20 mm. Hg. systolic pressure and greater than 15 mm. Hg. diastolic pressure should be considered a hyperreactor.

The results of this study lend additional support to the well-established conception of the need for a controlled study. It has been appreciated by many that controls are quite important when dealing with subjective data. However, these results obtained show that the need for a controlled evaluation is just as important in a condition with objective measurable findings.

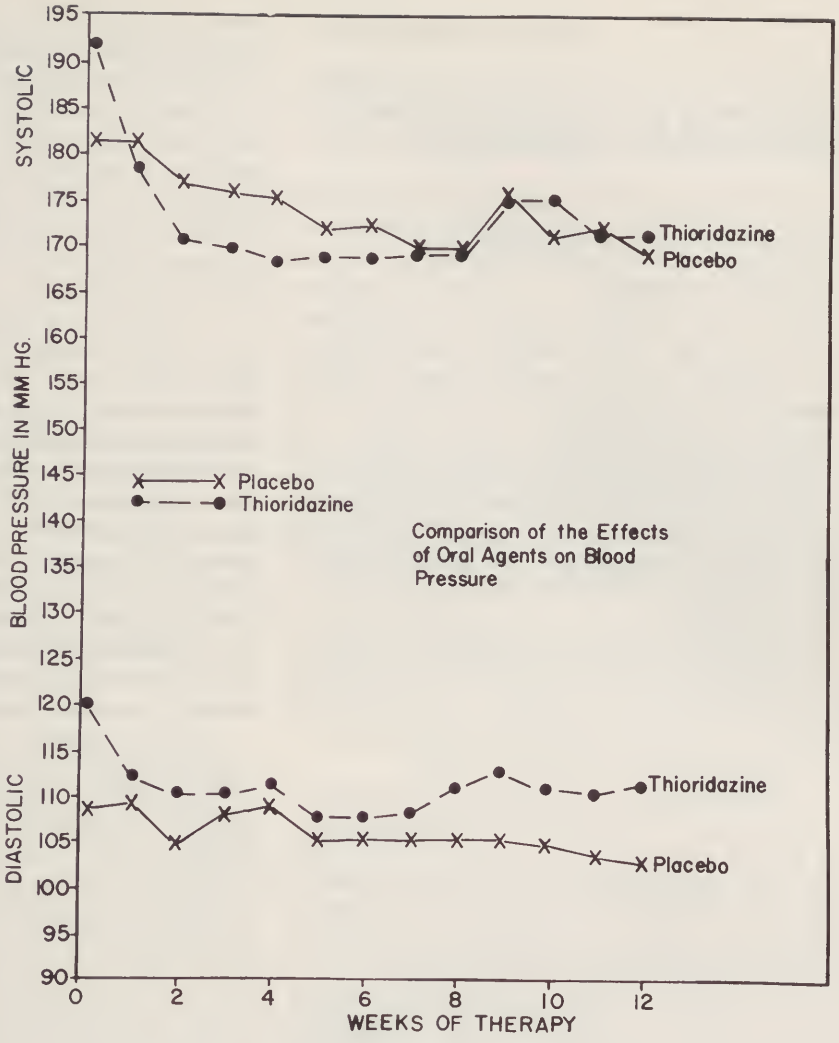


Figure 4

As noted here, both parenteral placebo and drug significantly decrease the systolic and diastolic blood pressure. However, when the decrease obtained following the use of the parenteral drug is compared to that obtained with a parenteral placebo, it is observed that there is no statistically significant difference. This, of course, suggests that the effect of the parenteral drug on blood pressure could be due to a placebo effect. Additional data will determine whether or not this is true. If the parenteral placebo does not continue to have a hypotensive effect, it would then seem valid to conclude that the hypotensive effect obtained with the drug is pharmacological.

Since the oral placebo did not cause a significant decrease in the systolic or diastolic blood pressure, we can then state that the parenteral placebo is more effective than the oral placebo in hypertension which is objectively measurable.

Moreover, the injections are administered only once every two weeks in contrast to one tablet being given three time a day. Further, those patients in the oral group have been seen for 30 minutes each week by the nurse in contrast to once every two weeks as is the case with the parenteral group. In spite of these two factors, it is noteworthy that the blood pressure decrease is still much greater with a parenteral placebo than an oral placebo.

Although reserpine and the hydrogenated alkaloids of ergot significantly lower both systolic and diastolic blood pressure when compared to the blood pressure in week 0 of treatment, there is no significant difference when the mean blood pressures are compared with those of the patients

receiving oral placebo. Thus, there is no statistical evidence that these substances, at the doses used, caused a significant decrease in the blood pressure.

The combination oral capsule used in this study caused a statistically significant decrease in the systolic blood pressure when compared to the oral placebo only in weeks 7, 9, 10 and 11. In the diastolic blood pressure, there was a significant difference in all weeks except weeks 1 and 2 when compared to the diastolic blood pressure obtained with oral placebo.

This study has attempted to provide data and information that will have a practical clinical application. Thus, only commonly accepted therapeutic doses have been employed throughout the study. This does not suggest that a greater hypotensive effect would not be obtained if higher dosages were used.

The results of this study accent the need of comparing drug treated groups with the control placebo group and not merely to a control blood pressure which existed prior to therapy as has been done in studies reported by others.

SUMMARY

1. The administration of a placebo intramuscularly was followed by a significant decrease in systolic blood pressure for 59 weeks and in the diastolic blood pressure for 143 weeks.

2. The administration of the hydrogenated alkaloids of ergot parenterally caused a significant decrease in the systolic blood pressure for 47 weeks and in the diastolic blood pressure for 143 weeks. There was no significant difference between these blood pressure readings and those obtained with the parenteral placebo.

3. An oral placebo caused no significant decrease in the systolic or diastolic blood pressure.

4. There was a significant decrease in systolic and diastolic blood pressure following the administration of oral hydrogenated alkaloids of ergot when compared to week 0. However, when this compound is compared to oral placebo, there is no significant decrease in the blood pressure except in week 7 in systolic blood pressure and in week 12 in diastolic pressure.

5. There was no significant decrease in systolic or diastolic blood pressure following the administration of dihydroergocornine.

6. The oral administration of reserpine was followed by a significant decrease in the systolic and diastolic blood pressure compared to week 0. However, there was no significant difference between reserpine and oral placebo except in the diastolic blood pressure in week 4.

7. With the combination capsule, there was a significant decrease in systolic blood pressure in all weeks except week 1 and in diastolic blood pressure in all weeks compared to week 0. When compared to placebo there was a significant difference in weeks 7, 9, 10 and 11 in systolic blood pressure and in all weeks except 1 and 2 in diastolic blood pressure.

8. There was a significant decrease in the systolic blood pressure of those patients receiving thioridazine when compared to the blood pressure in week 0. Also, there was a significant decrease in the diastolic blood pressure as compared to the pressure in weeks 6 and 7. However, when the blood pressure readings are compared to those obtained with oral placebo, there is no significant difference in the systolic blood pressures and only in the diastolic blood pressure of week 1.

9. This study has developed a new base line to make possible the accurate evaluation under controlled conditions of oral and parenteral drugs used to lower high blood pressure. ★★★

514-H East Woodrow Wilson Avenue (Dr. Grenfell)

Dr. Herbert G. Langford, associate professor of medicine, University of Mississippi School of Medicine, assisted greatly in the organization and planning of this study.

Statistical analysis was done by Dr. James G. Hilton, associate professor of pharmacology, Marquette University School of Medicine, Milwaukee, Wis., and the Department of Pharmacology, University of Mississippi School of Medicine.

This study was supported by a grant from the Mississippi Heart Association and Sandoz Pharmaceuticals, Inc., Hanover, N. J.

REFERENCES

1. Grenfell, R. F., and Hilton, J. G.: Treatment of Hypertension in Outpatient Clinic, Am. Pract. & Digest Treat. 9:401-404 (March) 1958.
2. Grenfell, R. F., and Hilton, J. G.: Study of Treatment of Essential Hypertension, South. M. J. 51:1406-1410 (Nov.) 1958.
3. Grenfell, R. F., and Hilton, J. G.: Evaluation of Antihypertensives: Statistical Base, Am. Pract. & Digest Treat. 10:1721-1725 (Oct.) 1959.
4. Grenfell, R. F.; Briggs, Arthur H.; and Holland, William C.: A Double-Blind Study of the Treatment of Hypertension, J.A.M.A. 176:124-128 (April 15) 1961.
5. Schroeder, H. A.: Hypertensive Diseases, Philadelphia, Lea and Febiger, 1953, p. 369.
6. Grenfell, R. F.: Treatment of Essential Hypertension with Hydrogenated Alkaloids of Ergot, Am. Pract. & Digest Treat. 4:39-44 (Jan.) 1953.
7. Grenfell, R. F.: Treatment of Essential Hypertension with Hydrogenated Alkaloids of Ergot: Further Observations, Am. Pract. & Digest Treat. 5:532-538 (July) 1954.
8. Hines, E. A.: Technique of Cold Pressor Test, Proc. Staff Meet. Mayo Clin. 14:185 (March 22) 1939.

Infected Abortions

WARREN C. PLAUCHE, M.D.
Jackson, Mississippi

In the United States approximately 8,000 women a year die from complications of attempted abortion. One of the major complications of criminal abortion is postabortal infection which is discussed in this paper. The author discusses the classification of septic abortions and the management of patients. He presents a plan of therapy for some of the more serious complications.

CRIMINAL ABORTION is a major cause of maternal death in the United States. It is estimated that 8,000 women a year die from complications of attempted abortion.[1] Five times this number are rendered sterile or partially disabled. The major complications of criminal abortion are hemorrhage, perforation of the uterus, and postabortal infection. The last is the leading cause of deaths in abortion and is the subject of this paper.

Infected or septic abortion has been defined as the presence of temperature elevation greater than 100.4° on any two consecutive days or greater than 101° on any one day after expulsion of a previable ovum.[1] Leading hospitals report a mortality rate of 1-3 per cent in patients meeting the criteria for this diagnosis.[2] It has been frequently stated that infection rarely accompanies spontaneous abortion, and when it is found, it is strong presumptive evidence of criminal interference.

CLASSIFICATION

Mule and McCall have classified septic abortions in order to facilitate discussion of the pathologic changes and clinical findings.[1] Although the disease is a continuum varying from minimal infection to generalized sepsis, it may be conveniently divided into three categories. These are descriptive of the disease process regardless of the responsible organism, except for the *Clostridium* group. The most common causative organisms are *Streptococcus, Staphylococcus, Escherichia coli, Aerobacter,* and less frequently, *Proteus* and *Pseudomonas.*

Category One: In these cases, the infection is confined to the endometrial cavity. The products of conception, decidua, and superficial myometrium are invaded by bacteria. The classic "pyogenic membrane" forms and seals off major blood vessels and lymphatics. Necrosis of secundines produces the characteristic foul discharge. Clinically, these patients are not severely ill and have only moderate elevation of temperature and pulse. Positive physical findings are usually limited to a tender, slightly enlarged, and boggy uterus.

Category Two: The body's defenses may break down, either because of an exceptionally virulent organism, an overwhelming inoculum of bacteria, faulty immunologic response, or manipulation or trauma. The infection may spread by direct invasion or along blood vessels and lymphatics, leading to pelvic cellulitis, pelvic peritonitis, and thrombophlebitis. These patients are acutely ill with temperature elevations in the range of 102-103°F. Physical examination reveals direct, and, frequently, rebound tenderness with varying degrees of muscle guarding in the lower abdomen. Copious foul discharge is commonly present, but bleeding is usually not massive. Pelvic examination reveals again a large, boggy, very tender uterus. In addition, the adnexa are thickened and intensely tender, especially on motion of the cervix. A "ropy" feeling along the pelvic wall has been described in pelvic thrombophlebitis, but this sign is frequently difficult to elicit.

Category Three: Defense barriers are further broken down and organisms enter the blood stream producing generalized sepsis. These patients are critically ill and the mortality rate is very high, 20-25 per cent being recorded from major centers.[4, 5]

From the Department of Obstetrics and Gynecology, University of Mississippi School of Medicine.

COMPLICATIONS

Distention, generalized abdominal pain, tenderness, absent bowel sounds, abdominal rigidity, vomiting, and dehydration herald a spreading peritonitis. This complication is most common when the uterus has been perforated during the abortion attempt. The body may still localize the infection at this stage. The abscesses formed are most commonly in the cul-de-sac, but also occur in the subdiaphragmatic and subhepatic spaces and loculated between adhering loops of bowel.

Multiple bacterial embolic showers may occur, leading to further involvement of many organ systems. The liver and spleen are frequently enlarged with jaundice occurring either from liver damage or from hemolysis. Some bacteria may implant on the endocardium, producing an acute endocarditis which may precipitate congestive failure. Pulmonary embolism may be massive, causing sudden death, or smaller, causing multiple pulmonary abscesses. Renal failure may occur, either from an acute tubular necrosis or from multiple cortical abscesses. Brain abscess and/or meningitis may occur with resultant delirium, coma, and death.

Approximately one-fourth to one-third of the cases showing septicemia develop hypotension out of proportion to the observed blood loss.[4] This syndrome of endotoxic shock usually occurs with the gram-negative organisms—*E. coli, Aerobacter, Pseudomonas,* or *Proteus*. It is believed to be produced when the powerful endotoxins produced by these organisms cause intense vasoconstriction of terminal arterioles resulting in ischemia and eventually irreversible vasodilatation and vascular collapse.[3] The mortality rate with this complication is reported as 30-50 per cent.[3, 4, 5]

TETANUS AND GAS GANGRENE

Postabortal tetanus is rare, the incidence being quoted as one in 6,000 cases of abortion.[8] This is a most dangerous form of tetanus, with a short incubation period and rapid, fulminating course terminating fatally in 75-100 per cent of cases.[7] The disease is caused by a large, gram-positive, club-shaped spore-forming rod, *Cl. tetani*. The clinical course is similar to that of tetanus from any source. Death usually occurs on the tenth to twelfth postabortal day.

Postabortal gas gangrene, though not as rare as tetanus, is an infrequent problem. This disease is caused by *Cl. perfringens* and *Cl. oedematis maligni* (vibrion septique), gram-positive encapsulated rods. The classic clinical picture is one of fulminating generalized sepsis with rapidly deepening jaundice due to extensive hemolysis. The disease begins two to three days postpartum and is rapidly progressive, leading to peripheral vascular collapse, renal failure, and death within a few hours to a few days.[9] The uterus is characteristically exquisitely tender and enlarged due to production of gas within the myometrium. This gas can occasionally be demonstrated radiologically in an "onion-peel" formation within the confines of the uterine shadow.

MANAGEMENT

Diagnosis: At the time of the initial pelvic examination, as soon as the diagnosis of septic abortion is entertained, smears of the cervical discharge should be taken, and gram stains and culture and sensitivity studies obtained. The gram stain is one of the most useful diagnostic procedures employed to guide initial management. Particular attention should be paid to whether the predominant organism is a gram positive coccus or a gram negative rod, and whether organisms resembling the clostridia group (gram positive spore-forming rods) are present. Blood is drawn for hematocrit, white count, and crossmatching of whole blood.

Antibiotics: Intravenous antibiotics should be started as soon as possible. The choice of antibiotics will be partially guided by the gram stain mentioned above. Broad spectrum coverage is desirable. Two regimens that are frequently employed are penicillin (5-10 million u. every 24 hours) plus I. M. streptomycin (1-2 gm. every 24 hours) or I.V. penicillin plus I.V. Chloromycetin or one of the tetracycline-group drugs (1-2 gm. every 24 hours). Antibiotic coverage should be planned to extend over a prolonged period of time. Many authors recommend therapy for one week after the patient becomes afebrile.[1]

Antitoxin: Most authorities recommend prophylactic doses of tetanus and gas gangrene antitoxins in all seriously ill patients with septic abortions (categories 2 and 3), or in any patient in whom clostridia are seen in the cervical smear.[1, 7, 8] The recommended dosage for prophylaxis is 1500-3000 u. of tetanus antitoxin, plus 2000-4000 u. each of two gas gangrene antitoxins (polyvalent antitoxin). Some doubt as to the efficacy of gas gangrene antitoxin is expressed in the literature, although its use is generally recommended. For clinical tetanus or gas gangrene much larger

doses of each antitoxin are used (40,000-100,000 u. daily).[8, 9] Large doses of barbiturates, muscle relaxants (meprobamate, mephenesin, methocarbamol) and frequently tracheostomy are indicated in cases of clinical tetanus.[6]

Supportive Measures: Some general points of supportive care of patients with septic abortion bear mention. Adequate blood replacement is mandatory. The patient should be placed at bed rest with the head of the bed slightly elevated in an attempt to pool any purulent exudate in the pelvis. Digitalis, oxygen, and diuretics are in order if congestive failure supervenes. Indwelling urinary catheters are frequently useful to follow urinary output, and necessary if oliguria is present.

Endotoxic shock is an emergency and the prognosis is grave. Very large doses of adrenal corticoids (i.e. hydrocortisone 1200-1500 mg. every 24 hours), given intravenously, are indicated. When the acute situation has passed, the steroids are gradually reduced. Vasopressor agents (Neo-Synephrine, Aramine, and Levophed) have been widely used to combat the hypotension in these patients. Some recent investigators have attained better results using the large doses of corticoids described above and relegating the use of vasopressors to patients with progressive oliguria not responding to other therapy. Anderson and Kadner, using a regimen of early curettage, large doses of steroids, and minimal use of vasopressors reduced the mortality rate in patients with gram-negative septicemia from 25 per cent to 8 per cent.[5]

Curettage: There is considerable controversy regarding the advisability of early curettage versus delayed curettage in cases of septic abortion. A commonly recommended program consists of intensive antibiotic treatment, as described above, followed by gentle, careful curettage of the uterine cavity when the patient has been free of fever for 24-48 hours. When the patient is first seen, it is proper to tease out any tissue protruding from the cervical os. Instrumentation of the uterine cavity before adequate coverage with antibiotics is hazardous, since infected material may be forced into the general circulation. Proponents of early curettage contend that bacteria in the endometrial cavity are not reached by antibiotics. It is common experience, however, that most cases become afebrile rapidly on intensive antibiotic therapy.

Curettage is not delayed if bleeding is excessive, and some evidence has been accumulated to suggest that early curettage may be indicated in severe gram-negative infections to prevent or combat the severe complication of endotoxic shock with its attendant high mortality. Also, in *Clostridium* infections, curettage is recommended to debride the wound of toxin forming organisms,[6] and if physometra is present or seriously suspected, emergency hysterectomy is indicated.[9] Curettage should be performed at some time in the hospital course of all patients with septic abortion. If this is not done, most patients will return with either hemorrhage or reinfection.

During the patient's hospital stay, sterile pelvic examinations should be performed every two to four days. Localized collections of pus should be promptly drained. Abscesses in the cul-de-sac, which point in the vaginal vault, are best drained through a colpotomy incision. Loculations are broken with the finger, or other appropriate instrument, and a large drainage tube is inserted. Abscesses in other locations are drained by the usual extraperitoneal surgical approaches. Antibiotic coverage is maintained until the patient has been afebrile approximately one week.[1]

SUMMARY

The problem of septic abortion and some of its attendant complications is discussed. The disease spectrum is divided into three categories for discussion of pathogenesis and clinical findings. An approach to the management of patients with septic abortion is presented, with a plan of therapy for some of the more serious complications.

★★★

2500 North State Street

REFERENCES

1. Mule, J. C., and McCall, M. L.: The Infected Abortion, Clin. Obst. & Gynec. 2:87, 1959.
2. Knapp, R. C.; Pratt, M. A.; and Douglas, R. G.: Septic Abortion, Obst. & Gynec. 15:344, 1960.
3. Adcock, L. L., and Hakanson, E. Y.: Vascular Collapse Complicating Septic Abortion, Am. J. Obst. & Gynec. 79:516, 1960.
4. Deane, R. M., and Russell, K. P.: Enterobacillary Septicemia and Bacteriologic Shock in Septic Abortion, Am. J. Obst. & Gynec. 79:528, 1960.
5. Anderson, G. C., and Kadner, M.: Septic Abortion with Vascular Collapse, West. J. Surg. 69:129, 1961.
6. Ramsey, A. M.; France, E. M.; and Dempsey, B. M.: Puerperal Tetanus: Treatment with Muscle Relaxants and Assisted Respiration, Lancet 2:548, 1956.
7. Weinstein, B. B., and Beacham, W. D.: Postabortal Tetanus: A Review of the Literature and a Report of 14 Additional Cases, Am. J. Obst. & Gynec. 42:1031, 1941.
9. Hill, A.: Postabortal and Puerperal Gas Gangrene, J. Obst. & Gynaec. Brit. Emp. 43:201, 1936.

Histoplasmosis: A Review with Case Reports

T. S. McCAY, M.D.
Belzoni, Mississippi

Histoplasmosis, a fungus disease caused by Histoplasma capsulatum, is endemic in the Central United States with thirty million people infected. The disease was first described by Darling in 1906 and the first case in the United States was diagnosed in 1926. The author discusses the incidence in Mississippi and observes that histoplasmosis is much more common than generally believed. He reviews diagnosis and treatment and presents two case reports.

HISTOPLASMOSIS IS a fungus disease caused by *Histoplasma capsulatum,* which was first described by Darling in Panama in 1906. In 1926, the first case of histoplasmosis was reported in the United States, and in 1934, DeMonbreun made the first ante mortem diagnosis by isolating the organism from circulating blood of a patient who had the disease.[1]

The incidence of histoplasmosis is much higher than generally believed. The disease is especially prevalent in the Central United States.[2] Studies on Mississippians done in 1952 at the Mississippi State Sanatorium showed a 22 per cent incidence of positive skin tests, with the greatest incidence of positive reactors coming from North Mississippi.[1] In another study, the incidence of positive skin test reactors among the teen-age population of Kentucky was 60 per cent.[3] The reason for such a discrepancy between reported and actual incidence of the disease lies in the fact that most cases are asymptomatic and undiagnosed. Another large group of cases have very mild "flu-like" symptoms, and many of these cases are misdiagnosed as viral illness or are simply called fever of undetermined origin.

Histoplasma capsulatum is commonly found in cool, damp soils with a high organic content, such as chicken houses, caves, and old silos. Infection is usually caused by inhalation of dust containing spores; however, some few cases may be due to direct inoculation of skin or mucous membranes.[4] The onset of symptoms usually follows exposure by about two or three weeks.

The manifestations of histoplasmosis cover a wide range. Clinical forms are acute pulmonary, chronic pulmonary, chronic extrapulmonary, and disseminated histoplasmosis. In acute pulmonary histoplasmosis, there are symptoms of malaise, myalgia, fever, and cough. The acute illness lasts from a few days to several weeks, and during this time there may frequently be seen mottling of the lungs on x-ray. These pulmonary lesions tend to calcify in time to give a typical "bird-shot" appearance. Recovery is usually spontaneous.

Chronic pulmonary histoplasmosis is insidious in origin. The apical portions of the lungs are the usual sites involved. X-ray appearance simulates apical tuberculosis. Intercurrent infections are frequent. Chronic extrapulmonary histoplasmosis produces ulcerated and granulomatous lesions of multiple areas other than the lungs, including the gastrointestinal tract, skin, liver, spleen, and central nervous system.

Disseminated histoplasmosis, as its name implies, may affect many body areas and is frequently fatal in very old and very young patients.[2] Adrenal involvement sometimes causes Addison's disease. It is also of note that dissemination may be initiated by cortisone therapy.[5]

Absolute diagnosis of histoplasmosis depends on demonstration of the organism by culture; however, culture technique is difficult and seldom

Read before the 75th Semi-annual Meeting of the Delta Medical Society, Greenwood, April 12, 1961.

practicable. The histoplasmin skin test, which becomes positive about three weeks after infection begins, is a valuable aid to diagnosis. Complement fixation studies also are quite beneficial and a changing titer is most suggestive; however, it must be remembered that cross sensitivity between related fungus antibodies may give false positive results. It has also been shown that skin testing alone may cause development of humoral antibodies to *H. capsulatum*.[6] Finally, one is sometimes able to make a diagnosis by demonstrating the organism in tissue preparations.

Treatment of histoplasmosis depends on the severity of the infection. Most cases require only symptomatic therapy. In chronic pulmonary histoplasmosis with cavitation, amphotericin B, combined with surgery, is recommended. In disseminated histoplasmosis, amphotericin B and supportive therapy are indicated.[7]

CASE REPORTS

Case 1. L.W.G., a white male of seven years, was admitted to the Humphreys County Memorial Hospital on Feb. 22, 1960. For three weeks prior to admission this child had been ill with low-grade fever, myalgia, malaise, and cough. He had received antibiotics from his family physician without apparent benefit and was referred to the hospital for further study. The history was otherwise noncontributory.

Physical examination was normal except for a slight temperature elevation. Urinalysis and hemogram were normal. C-reactive protein was negative. Sedimentation rate was slightly elevated. Routine febrile agglutinations were negative. The heterophil agglutination was negative. Chest x-ray was normal. Intermediate strength PPD was negative. Histoplasmosis complement fixation test revealed a negative antigen I and an antigen II positive at a dilution of 1:32. The histoplasmin skin test was strongly reactive at 24, 48, and 72 hours.

The patient was discharged on his sixth hospital day and has done well. On March 1, 1960, complement fixation studies revealed antigen I positive 1:8, antigen II positive 1:16. On March 3, 1961, antigen I was positive 1:16, antigen II positive 1:32. Repeat chest x-rays have been normal.

Case 2. A.M., a colored female of 63 years, was first seen in the Humphreys County Memorial Hospital on Feb. 20, 1960. History obtained at that time revealed that the patient had not been well for at least five years. About four years prior to admission, she developed cervical adenopathy, and a biopsy of one of these nodes was reported as lymphoma—type undetermined. For two years prior to admission, this woman had been bothered by recurrent "fever blisters" which were refractory to treatment. During the two months before admission, the patient developed anorexia, rapid weight loss, and dyspnea.

Physical examination revealed an emaciated, acutely ill, colored female who appeared much older than the stated age. Temperature was 100.8, blood pressure was 100/60, and pulse was weak at a rate of 74. There was an ulcer of the lower lip measuring 2 cm. by 1 cm. There was marked generalized lymphadenopathy. Rales were heard throughout the chest. Abdominal examination revealed an enlarged liver and spleen.

Admission laboratory studies revealed moderate leucocytosis. Chest x-ray showed a right pleural effusion, minimal pneumonia of the right lower lobe, and marked enlargement of the paratracheal lymph nodes.

In view of the clinical picture and history of the previous diagnosis, it was felt that the patient had one of the lymphomas with a complicating bacterial pneumonia. Treatment was started with antibiotics; after a week, steroids were started in hopes that the lymphoma might respond. The patient's condition continued to deteriorate. On March 7, 1960, the patient expired. Some eight hours before death, a cervical lymph node was taken for a biopsy; and, subsequent to death, our pathologist reported this specimen to be loaded with *H. capsulatum*.

DISCUSSION

These cases serve to illustrate two clinical pictures of histoplasmosis. The first, a relatively benign disease process; the second, a disseminated, fatal disease. No doubt the final outcome in the second patient was hastened by the steroid which was given for treatment of the lymphoma. It is also worth while to mention that an association between histoplasmosis and the lymphomas has previously been reported.[8]

SUMMARY

A partial review of the literature on histoplasmosis has been presented along with two cases. It is emphasized that histoplasmosis is much more common than generally believed. An increased awareness of this disease process may aid in diagnosing a number of illnesses which now fall into the misdiagnosed and "unknown" categories.

★★★

84 Church Street

REFERENCES

1. Watkins, C. A.: Histoplasmosis, Mississippi Doctor 37:176 (Dec.) 1959.
2. Sutliff, W. D.; Larkin, J. C.; and Hyde, Leroy: My-

cotic Diseases of the Lungs, M. Clin. North America 43:219 (Jan.) 1959.
3. Little, J. A.: Benign Primary Pulmonary Histoplasmosis: A Common Cause of Unexplained Fever in Children 53:1238 (Oct.) 1960.
4. Miller, Seward E.: A Textbook of Clinical Pathology, ed. 6, Baltimore, Williams & Wilkins, 1960, pp. 587-588.
5. Smith, F. P., and Cleve, E. A.: Infections Complicating Cortisone Therapy, New England J. Med. 256:104 (Jan.) 1957.
6. McDearman, Sara, and Young, J. M.: The Development of Positive Serologic Tests with *Histoplasma Capsulatum* Antigens Following Single Histoplasmin Skin Tests, Am. J. Clin. Path. 34:434 (Nov.) 1960.
7. Loewen, D. F.; Procknow, J. J.; and Loosli, C. G.: Chronic Active Pulmonary Histoplasmosis with Cavitation, Am. J. Med. 28:252 (Feb.) 1960.
8. Nelson, N. A.; Goodman, H. L.; and Oster, H. L.: The Association of Histoplasmosis and Lymphoma 233:56 (Jan.) 1957.

CONGRESSIONALESE

News stories of congressional goings-on, datelined out of Washington, often contain lively language and poignant quotes from prominent members on both sides of the aisles. With tongue in cheek, *Insider's Newsletter* "translates" such reporting:

"Postponed in the interest of party harmony"—We didn't have the votes.

"Steamroller tactics"—Our opposition had the votes.

"Party leaders feel that the bill will squeak through"—We need a few more votes.

"A bill in the public interest"—A good election year measure.

"Bold new approach"—Something which hasn't been tried since last year.

Closure of Traumatic Wounds of the Hand

J. T. DAVIS, M.D.
Corinth, Mississippi

From the bricklayer to the physician all persons use their hands to make their living. This constant dependence on the hands subjects them to a high possibility of injury, and it is estimated that hand injuries account for 35 to 50 per cent of all wounds. In this paper the author concentrates solely on the closure of traumatic hand injuries. He emphasizes that the aim of all treatment is to obtain maximum functional restoration.

THE SKIN IS THE SHIELD of the body and a barrier to the many insults of the outside world. When this protective covering is violated, the underlying tissues and structures of the body are subjected to the ravages of infection and trauma. This is particularly significant in traumatic wounds of the hand.

The hand is subjected to a wide variety of major and minor wounds wherein the delicate underlying gliding mechanism of tendons and joints and the intricate network of nerves and blood vessels are exposed to their greatest enemies, infection and edema. Wounds in which healing is delayed by infection or left open to heal by granulation and scar are certain to result in fibrosis and contractures and produce crippling deformities, a compromise to functional restoration.

AIM OF SURGEON

The responsibility and aim of the surgeon is early restoration of the damaged tissues to their optimum peak of rehabilitation. Toward this end and above all other considerations at the time of initial injury, complete closure of the wound is paramount. The door to infection must be closed. This is accomplished by converting the injury into a surgically clean wound, closing by primary suture or skin graft, applying a purposeful compression dressing, and keeping the part elevated to combat postoperative edema.

The skill and judgment exercised in the early hours following hand injuries is always reflected in the degree of functional restoration. If the surgeon is not familiar with the principles of proper care, particularly the repair of nerves and tendons, it would be far better for him to refer the case to one who is more experienced, or if conditions permit, effect a closure by primary or secondary suture or skin graft and leave the nerves and tendons to be repaired in the reparative stage by one skilled in this particular type of surgery.

Read before the Section on Surgery, 93rd Annual Session, Mississippi State Medical Association, Biloxi, May 9-11, 1962.

EVALUATION

An accurate history of how, when, and where a hand injury has occurred is most essential. The cleanly incised wound, inflicted within doors, usually shows good results when repair is done in the early hours. However, the badly mangled hand, grossly contaminated by dirt and foreign material, which is seen several hours following the accident, presents many complex problems and frequently results in a serious compromise in the function of the hand. Between these two extremes there are many injuries with varying combinations of the *how, when* and *where* factors which require careful evaluation to determine proper treatment.

The *how* factor offers information regarding the extent of the trauma as it pertains to incised, lacerated, and crushing wounds. The *where* factor serves as a fair index to the type and extent of contamination, and the *when* factor often reflects the possibility of present or impending infection.

Evaluation of the injury regarding diagnosis of fractures, lacerated nerves, and severed tendons should be determined by thorough x-ray and physical examination. The usual tests of the

median, radial, and ulna nerves involved in the injury must be made, and they should not only be thoroughly performed, but accurately recorded.

SURGICAL CARE

Hand injuries should be considered emergencies and all except the most minor injuries should be treated in the hospital. There, using sterile glove technic with all personnel masked, the wound should be covered and the surrounding skin shaved and thoroughly and repeatedly cleansed with one of the detergents containing G-11, after which the wound is thoroughly lavaged with copious amounts of physiological saline. The latter should be gently performed as irrigations done with pressure, as with a bulb syringe, may force infection into the tendon sheaths and the deeper tissues. Antiseptic solutions have no place in the preoperative preparation of wounds of the hand. Sterile rubber finger cots may be fitted over the distal phalanges to avoid contamination from the finger tips and finger nails.

At this point in the procedure it is usually wise to institute anesthesia. For less severe wounds, local or regional block may suffice; however, for those wounds which require longer operative time and for children, general anesthesia is the anesthesia of choice.

Hemorrhage is always embarrassing and a definite impediment to the surgeon. Particularly is this true in dealing with injured tendons and nerves. Operating in a bloodless field is made possible by the use of a blood pressure cuff about the upper arm. The cuff is applied over wide and smooth padding or a few turns of sheet wadding so as to evenly distribute the pressure to the soft tissues. The arm is elevated for one to two minutes in a perpendicular manner to empty all venous channels and is then firmly compressed with an elastic bandage. The blood pressure cuff is rapidly pumped to 280 mm. of mercury and the tubing clamped. With this arrangement the tourniquet may be left on for one to two hours without ill effect.

Following anesthesia all drapes are changed and the field made ready for surgical repair. Foreign bodies are sought and removed and conservative debridement of the wound carried out. Gentleness in handling soft tissue is paramount to prevent further insult to the already damaged structures.

Now that a complete history has been obtained, thorough physical examination performed, and x-ray findings noted, the surgeon is confronted with two important questions: 1. Can this wound be closed safely? 2. Should primary suture of nerves and tendons be done at this time?

If the wound has been cleanly incised and is attended within the "golden period" of eight hours, then the surgeon may elect to close the wound following primary suture of nerves and tendons, in which case no further surgery may be necessary. The time factor, under ideal circumstances, may be lengthened well beyond the eight hour limit and in some cases even to twelve hours, since the advent of antibiotics. However, the use of antibiotics should not replace the principles of good surgery. It is the opinion of many surgeons that the use of antibiotics should lengthen the time factor only in the clean incised cases and in those trauma cases where adequate debridement can be accomplished.

In many instances the wound is badly lacerated and the deeper structures torn and traumatized and consequently less resistant to infections. Even though such a case is seen within the eight hour "golden period," the surgeon may prefer to do a conservative debridement, effect a covering of all deep structures by skin closure, and leave the nerves and tendons for the reparative stage three to six weeks later. If the wound is seen twelve hours following the injury with signs of early infection, then it would be wise to only partially close the wound, delaying further closure five to six days and leaving the nerves and tendons for the reparative stage three to six weeks later.

DEBRIDEMENT

Frequently the surgeon has difficulty in determining just how extensive the wound should be debrided. This is particularly a problem in avulsed crushing wounds with traumatized skin, muscle, and tendons and often detached fragments of bones. To conserve all viable tissue is essential, but failure to remove nonviable tissue invites infection and delayed healing. The "blushing" test for viability may be used to an advantage. After thoroughly inspecting the wound to determine the extent of injury, the pneumatic tourniquet previously applied to the upper arm is temporarily released. There will immediately appear a blushing of the viable tissue due to the sudden inflow of blood. The viability of tissue not demonstrating this change should be questioned.

If torn flaps of skin have their base on the distal rather than the proximal side of the wound, viability will be questionable, because of interference with venous return and resulting edema of the flap. Some of these flaps may be saved by

thoroughly defatting them down to the dermal layer and reapplying them under pressure. For others it may be necessary to detach the flap at its base to prevent venous congestion, defat and reapply it as a full thickness free graft, provided the blood supply of the recipient bed is adequate.

For surgical consideration, traumatic wounds may be divided into two categories: 1. Those with no loss of skin which may be closed by simple suture and 2. Those with tissue loss requiring skin grafting.

SKIN GRAFTS

The following is a simple classification of skin grafts named in the order of frequent use. Each possesses a particular advantage in the proper closure of hand wounds.

I. Free Skin Grafts
   - A. Split thickness
   - B. Full thickness

II. Pedicle Flaps
   - A. Local skin flaps
     1. Rotation flaps
     2. Cross finger flaps
     3. Thenar flaps
   - B. Distant flaps—chest and abdomen
     1. Immediate flaps
     2. Tubed flaps

In choosing the type of graft needed, many factors are to be considered. Free grafts should be used whenever possible. However, only a pedicle graft will suffice for many wounds, such as denuded bones, tendons, and nerves, which need additional blood supply and subcutaneous tissue.

FREE GRAFTS

In emergency surgery free grafts probably lend themselves to the greatest advantage and are most frequently used. Most general surgeons are familiar with the technic of cutting and applying this type of graft. It allows free motion of the uninjured parts and elevation of the injured part to combat edema. It permits placing the hand in the position of function as a safeguard in case of subsequent stiffness.

The success of the free graft depends very largely upon the condition of the recipient bed and the thickness of the graft. The thinner the split graft the more likely will be the "take." The thin free graft, usually cut to 0.015-0.02 of an inch in thickness, should be used where there exists a compromise in cleanliness and vascularity of the recipient bed. Experiments carried out by Eade with grafting in burn victims indicate that split skin grafting is much more effective in sterilizing the wound than local or systemic antibiotics.

The thick split graft, usually cut 0.03 of an inch in thickness, requires a good vascular bed. The thickness of the split graft should be increased to the point the blood supply of the recipient bed will allow, as the thicker the graft the less subsequent scarring and contracture.

The free full thickness graft, or Wolfe graft, has a limited field in primary traumatic surgery. It may be used to advantage in conditions such as clean amputation stumps and wounds with skin loss but with little trauma, wherein the underlying blood supply of the recipient bed is adequate. These grafts usually measure 0.05 of an inch in thickness. Skin which has received little trauma may be recovered from the wound and used or the graft may be cut from the volar aspect of the forearm or the medial side of the thigh. Such grafts require strict immobilization and careful postoperative care.

PEDICLE GRAFTS

To close wounds with severe loss of protective tissue to bones, tendons, and nerves, the pedicle graft is the procedure of choice.

Every effort should be made to utilize the skin of the hand for closure by local rotation, cross finger, or palmar flaps. The highly specialized palmar skin with its delicate sense of touch, its thickened protective covering, and its ability to adapt itself to the trauma of manual labor cannot be duplicated. All viable tissue in this area should be carefully conserved. The unusual quality of elasticity possessed by the dorsal skin of the hand makes the use of rotation flaps in this area not only feasible, but highly desirable.

The cross-finger flap is a good means of resurfacing a severe palmar defect on the proximal and middle phalanges, wherein the covering of bones, tendons, or nerves has been destroyed. However, it should be used with caution. The flap is cut from the dorsum of the adjoining finger, preferably with its base toward the injured finger. Great care should be taken to preserve the neurovascular bundles and to leave sufficient covering of soft tissue over the extensor tendon. The dorsal flap is reversed on its base allowing the raw surface to contact and cover the palmar defect of the adjoining injured finger. The donor site is resurfaced with a split graft.

To cover and protect a finger tip that has lost its protective pulp tissue requires a full thickness flap. The sensitive palmar skin from the thenar area is the ideal choice. The site of the flap should be accurately determined by allowing the patient

to actively flex the injured finger into the palm. At the point of contact with the palm, a flap should be outlined slightly larger than the defect with its base proximal to the injury. In suturing the flap to the injured finger tip, the pedicle base should be kept as near 90° to the palm as possible to prevent interference with the blood supply. The donor area is covered by a split graft. Immobilization for a period of at least 14 days before severing the pedicle is imperative to allow sufficient time for the blood supply to the flap to be established.

Every possibility of closure of traumatic wounds, either by simple suture, free grafts, or local pedicle grafts from the hand, should be exhausted before resorting to the more cumbersome distant grafts from chest or abdomen. However, many of the more severe traumatic injuries of the hand must of necessity be repaired with this type of pedicle graft. Shotgun wounds, injuries caused by heavy farm and industrial machines, with avulsed or severe loss of soft tissue, fall in this group. Many are not only devoid of skin and subcutaneous tissue but often are ischemic due to injury or spasm of blood vessels. Here the pedicle graft serves its greatest purpose in that it not only offers full thickness coverage, but may add considerably to improving viability of the injured part.

The immediate pedicle graft preferably is taken from the chest or abdomen. It should be cut with a broad base to insure blood supply and should be applied immediately to the freshly debrided wound. Split grafts should always be used to cover the free raw area of the pedicle to prevent infection, thrombosis, and resulting edema. Severance of the pedicle is safe in about 21 days. If the base is quite broad, severance is best done in stages, carefully observing the blood supply to the flap.

The one-stage pedicle tube graft as advocated by Shaw is quite useful, particularly in the immediate resurfacing, preserving, and/or reconstruction of the severely injured thumb or index finger where skin, subcutaneous tissue, and additional blood supply is needed. This graft, utilizing the blood supply from the inferior epigastric vessels in the inguinal area, may be raised, tubed, and applied in one stage making it a useful procedure in primary care of many traumatic wounds.

POSTOPERATIVE CARE

Postoperative care consists of proper splinting and positioning of the injured part, a carefully applied compression dressing, elevation of the part, antibiotics, and close attention to wound healing.

Splinting in the position of function is imperative and is a safeguard toward preserving the grasp and pinching action, so important in the hand. Where possible, only the injured portion of the hand is immobilized, allowing motion in all others to combat fibrosis and stiffness. A carefully placed compression dressing is applied with special attention to the bony points and interdigital spaces. Too much pressure over the latter will surely interfere with blood supply to the fingers. The finger tips should be left exposed to allow the usual tests for circulation and sensation response. Elevation combats edema and should be insisted upon where feasible. Bed rest with vertical suspension of the injured hand from an overhead frame is frequently the most comfortable position for the patient and is particularly indicated in severe injuries. Dressings, usually changed on the fifth or sixth day to inspect the wound and reapply fresh compression, may be done earlier if infection is suspected or may be delayed until the seventh to tenth day in clean cases, at which time superficial sutures may be removed. Clean, thick free grafts may be allowed to go ten to twenty days if all goes well.

Early motion of the parts is essential to combat stiffness and restore optimum rehabilitation.

SUMMARY

The principles of this paper may be summed up by five *C*'s:

1. *C*lean the wound
2. *C*onservatively debride
3. *C*over or close the injury
4. *C*orrectly position the part
5. *C*ommence early motion ★★★

815 Childs Street

REFERENCES

1. Shaw, Darrel T., and Payne, Robert N.: One Stage Tube Abdominal Flaps, Surg. Gynec. & Obst. 83:205-209 (Aug.) 1946.
2. Cannon, B.: Open Grafting of Raw Surfaces, New England J. Med. 256:672-675 (April 11) 1957.
3. Cannon B.: Plastic Surgery of the Hand, New England J. Med. 263:238-243 (Aug.) 1960.
4. McCormach, A.: Reconstructive Surgery and Immediate Care of the Severely Injured Hand, in De Palma, A. S.: Clinical Orthopaedics, Philadelphia, J. B. Lippincott, 1959, vol. 13, pp. 75-83.
5. Shaw, Mortimer: Treatment of Hand Conditions by Plastic Surgery, in Wakeley, Cecil: Modern Treatment Year Book, ed. 25, Baltimore, Williams and Wilkins Company, 1959, pp. 1-7.
6. Koch, Sumner: Transplantation of Skin and Subcutaneous Tissue to the Hand, Surg. Gynec. & Obst. 72:1-4 (Jan.); 157-177 (Feb.) 1941.
7. Bell, John L.: Surgical Consideration of Hand Rehabilitation, Arch. Phys. Med. 41:45-52 (Feb.) 1960.

Clinicopathological Conference XXVI

Conducted by the Department of Pathology
Mississippi Baptist Hospital
Jackson, Mississippi

The patient in CPC XXVI is a 66-year-old white woman who was admitted to the Baptist Hospital with a chief complaint of a gradually progressive, slightly productive, paroxysmal cough. The history and laboratory data were unproductive, but x-ray of the chest revealed a shadow in the posterior basal segment of the left lower lobe extending up toward the superior segment. On bronchography it was noted that the segmental bronchi to this shadow did not fill.

Discussers are Drs. Lee R. Reid, Elmer J. Harris, James C. Griffin, Jr., Hans K. Stauss, and Louis Schiesari.

CPC XXVI CONCERNS a 66-year-old white woman who entered the Baptist Hospital with the chief complaint of a gradually progressive, slightly productive, paroxysmal cough. The illness had begun about eight weeks prior to admission with "a cold or flu" which soon became a "chest cold" associated with increasing cough and intermittent wheezing. There was slight shortening of breath accompanied by mild chest discomfort. At the onset, there was moderate fever, which subsided soon after admission to the hospital. There were no chills or night sweats. The sputum was described as occasionally yellowish and there was no hemoptysis. The patient had had only slight anorexia and moderate weight loss.

There had been no significant response to antibiotic therapy. A recent x-ray examination had revealed a left lower lobe basal retrocardiac infiltration. In the past history there were no instances of pneumonia, frequent bronchitis, asthma, or other chest diseases. The patient had never had any serious medical illness.

The physical examination revealed a well-developed, well-nourished, afebrile white female with a blood pressure of 150/80 and a pulse of 80/82. The chest was symmetrical with no abnormal percussion dullness or friction rubs. The heart was unremarkable. Auscultation of the lungs revealed the right to be clear except for a few basal rales which cleared up on cough. Over the left lung there were extensive and more persistent basal rales but no locally increased or decreased breath or voice sounds and no wheezing. The abdomen and extremities were negative.

The hemoglobin was 13.2 grams per cent and the hematocrit 44 volumes per cent. The white blood count was 7,000 with 6 per cent monocytes, 16 per cent lymphocytes, 1 per cent eosinophils, and 77 per cent segmented neutrophils. Urinalysis was negative. X-ray of the chest revealed a shadow in the posterior basal segment of the left lower lobe extending up toward the superior segment. On bronchography it was noted that the segmental bronchi to this shadow did not fill and thus might be blocked by a tumor mass or fluid within the bronchi associated with inflammatory disease. Bronchography also pointed up minimal bronchiectasis, cylindrical in type, particularly in the right lower lobe. Bronchoscopy showed no evidence of endobronchial neoplasm or specific infection. Bronchial washings were negative for tumor cells. A second x-ray examination revealed minimal residual Dianosil and the mass in the left base appeared unchanged. An exploratory thoracotomy was performed on the seventh hospital day.

DISCUSSION

Dr. Lee R. Reid: "I think it would be interesting to see the x-rays next."

Dr. Elmer J. Harris: "The shadow or mass in question is seen best on the PA and right anterior oblique films, as shown here. It can be seen on the left anterior oblique view also and is posteriorly located, but it is difficult to see on the lateral

film. It involves the posterior basal segment of the left lower lobe. Bronchograms showed that this segment of lung did not fill. The branch bronchi appear to be partly displaced and partially unfilled. There is minimal cylindrical bronchiectasis in some of the lower lobe segments of both lungs."

Dr. James C. Griffin, Jr.: "Can you identify all of the basilar bronchi, as such, on that side?"

Dr. Harris: "Yes, we localized the involved segment to be the posterior basal segment and could

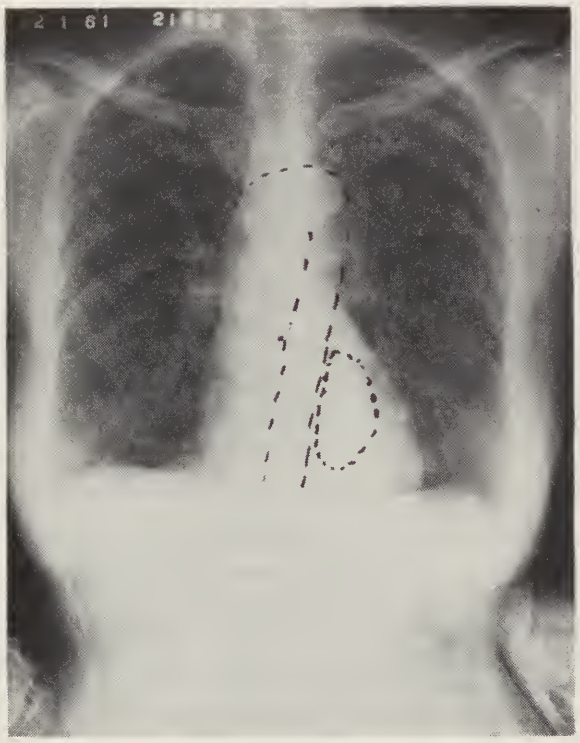


Figure 1. A fusiform mass is evident in the posterior basilar segment of the left lower lobe. This fusiform shadow is superimposed upon the heart and lies adjacent to the descending aorta.

not identify any bronchi going into the shadow. We could identify all other main segments."

Dr. Griffin: "The reason I asked was that it seems likely that there certainly was some cylindrical bronchiectasis in this anteromedial segment. There was, of course, some bronchiectasis in the left lower lobe too."

Dr. Reid: "I think that probably we have a bilateral bronchiectasis. Apparently it is not giving very many symptoms because the patient did not complain of anything until two months prior to admission. Here is a 66-year-old woman who for two months had symptoms of bronchitis and fairly intermittent bronchial obstruction because it is noted that she had had wheezing in her chest. She had a febrile onset of the disease, and later the fever became normal, apparently when she got in the hospital. It is important to note that the course of the disease was unaffected by antibiotics. Apparently there was a bronchial obstruction which progressed to final closure of the bronchus because the contrast media did not fill it.

"The laboratory work was not rewarding. The bronchoscopy showed no evidence of endobronchial neoplasm or specific infection. I do not know if this means that there was a normal bronchus; at any rate, no tumor mass was seen. Of course, a bronchus, especially a segmental bronchus, could easily be blocked beyond the range of the bronchoscope. The bronchial washings were negative for malignant cells. The protocol also indicates that bronchiectasis was present bilaterally. The main finding, then, was the mass shown by x-ray. The films also showed that the segmental bronchi leading to the shadow area were blocked.

CAUSAL FACTORS

"A number of factors may cause a blocked bronchus. It can be blocked by external pressure, usually from a lymph node pressing on it. This condition is most likely tuberculous in origin. The block can also be due to pyogenic organisms or there can be obstruction from a metastatic malignancy or pressure from the outside of a benign tumor. Other possibilities include blocking of the lumen of the bronchus by mucous plug, pyogenic debris, or a foreign body. The most common cause in this age group is a malignancy of the bronchus itself with blocking and subsequent shadow of atelectasis. It is also possible to have the bronchus filled with necrotic material from a malignancy farther out in the lung.

"Tuberculosis can cause blocking of the bronchus by fibrotic stenosis which, of course, is usually associated with a long-standing chronic disease. The bronchus can also be blocked rather rapidly by tuberculosis granulation tissue. I am going on the assumption that the lesion seen in the left base was produced by an atelectasis. Blocking of the bronchus from mucous plugs has to be considered. However, the mucous plug would have had to be in there for quite a long time and it and pyogenic debris usually do not stay in the bronchus for an extended period. Foreign body obstruction is possible, but the history does not suggest this.



VIGOR

In all of life, only unflagging energy in meeting problems can bring progress.

Behind the success of Mississippi Blue Cross-Blue Shield has been the continuing urge to increase its value to the public. Take the matter of "Master Health" benefits. This is one of the greatest steps forward in the entire field of prepaying health care costs. And it was pioneered by Mississippi Blue Cross-Blue Shield. Over and above the many regular Blue Cross-Blue Shield benefits, our Master Health Plan covers:

- ☐ diagnostic X-ray and laboratory examinations up to $50 per member annually, in or out of the hospital.
- ☐ accidental injury benefits up to $300 for any treatment, in or out of the hospital.
- ☐ major medical benefits up to $5,000, in or out of the hospital.

Blue Cross-Blue Shield protection is good for doctors, good for hospitals and good for the patients. It's the best health care protection money can buy.

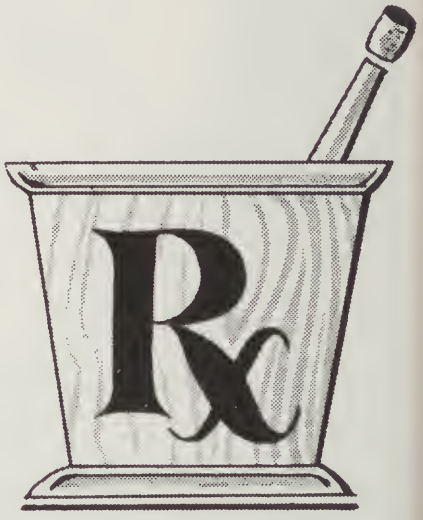
BLUE CROSS
BLUE SHIELD

MISSISSIPPI HOSPITAL & MEDICAL SERVICE / 530 EAST WOODROW WILSON AVE. / JACKSON, MISS. / TELEPHONE EM 6-1422

To be of Service to the Medica

o

Dedicated service, linked with ethical pharmaceuticals of the highest standard, have won Abars the respect of the medical profession throughout Mississippi.



Qualitas—Integritas—Servitium

Today, Abars pharmaceuticals are available in all wholesale drug warehouses who serve the medical profession of Mississippi. All of Abars pharmaceuticals are advertised only to the profession . . . and meet the most exacting standards and requirements of State and Federal government regulatory agencies. Abars' own methods of quality control include its Medical Advisory Board composed of active practicing physicians—all of whom are past presidents of MSMA or the MAGP. The services of the nation's largest testing laboratory—Scientific Associates—are used, insuring the exacting standard set by the management and the Medical Advisory Board.

Profession

Mississippi is our greatest Ambition

One of abars' outstanding products is . . .

PYRABAR

- Gives PROMPT RELIEF Of Most Urinary Complaints
- STOPS PAINFUL BLADDER SPASM
- DOES NOT PRODUCE KIDNEY DAMAGE

ACTION AND USES:

Phenylazo-Diamino-Pyridine HCL is widely used for its local analgesic effect on the urogenital mucosa which contributes to the prompt and effective relief of distressing urinary symptoms. Sulfacetamide is one of the most soluble and least toxic of the sulfonamides. Natural Belladonna alkaloids to relax spastic smooth muscle, relieve pain and encourage normal bladder emptying. Pyrabar gives prompt relief of most urinary complaints—whether symptoms are due to infection, a local irritation, nervous bladder spasm or some combination of the three.

FORMULA: Each Tablet Contains:

Phenylazo-Diamino-Pyridine HCL	50 mg.
Sulfacetamide	250 mg.
Hyoscayamine Sulfate	0.05185 mg.
Atropine Sulfate	0.0097 mg.
Hyoscine Hydrobromide	0.00325 mg.

DOSAGE: Orally, adults 4 tablets initially then 2 tablets 4 times daily after meals and at bedtime.

SUPPLIED: S. C. dark red—Bottles of 100 and 1,000

abars ETHICAL PHARMACEUTICALS

MEDICAL ARTS BUILDING · JACKSON, MISSISSIPPI

Digestant needed?

Cotazym-B provides the most potent pancreatic enzyme action available!

Cotazym-B supplies

12 TIMES GREATER FAT-SPLITTING LIPASE (STEAPSIN) ACTIVITY THAN PANCREATIN N.F.[1]

7 TIMES GREATER STARCH-DIGESTANT AMYLASE (AMYLOPSIN) ACTIVITY[2]

5 TIMES GREATER PROTEIN-DIGESTANT PROTEINASE (TRYPSIN) ACTIVITY[2]

– PLUS BILE SALTS TO AID IN DIGESTION OF FAT, AND CELLULASE TO AID IN DIGESTION OF FIBROUS VEGETABLES



COTAZYM-B is a new comprehensive digestant containing bile salts, cellulase and *lipancreatin* for supplementing deficient digestive secretions and helping to restore more normal digestive processes. *Lipancreatin*—"the most potent pancreatic extract available"[3]—is a concentrated pancreatic enzyme preparation developed by Organon.[4] It has been clinically proven to be an effective agent for treating digestive disorders of enzymatic origin.[1,4,5,6,7,8] COTAZYM-B is indicated for the symptomatic relief of dyspeptic or functional digestive disturbances characterized by bloating, belching, flatulence and upper abdominal discomfort.

Dosage: 1 or 2 tablets with water just before each meal.

Organon

REFERENCES: 1. Best, E. B., Hightower, N. C., Jr., Williams, B. H., and Carobasi, R. J.: South. M.J. 53:1091, 1960. 2. Analytical Control Laboratories, Organon Inc. 3. Best, E. B., et al.: Symposium at West Orange, N. J., May 11, 1960. 4. Thompson, K. W., and Price, R. T.: Scientific Exhibit Section, A.M.A., Atlantic City, N. J., June 8-12, 1959. 5. Weinstein, J. J.: Discussion in Kelfer, E. D., Am. J. Gastro. 35:353, 1961. 6. Ruffin, J. M., McBee, J. W., and Davis, T. D.: Chicago Medicine, Vol. 64, No. 2, June, 1961. 7. Berkowitz, D., and Silk, R.: Scientific Exhibit Section, A.M.A., New York, June 25-30, 1961. 8. Berkowitz, D., and Glassman, S.: N. Y. St. J. Med. 62:58, 1962.

ORGANON INC., WEST ORANGE, NEW JERSEY

Cotazym®-B

Lipancreatin Bile Salts Cellulase

"Malignancy and tuberculosis are possible on all counts. Both could have caused the patient's symptoms; both could have caused the x-ray changes, and neither would have reacted to antibiotics.

"In this case the history, the bronchoscopy, and the laboratory work do not contribute very much. The diagnosis depends almost entirely on the x-ray findings. In discussing this patient, I have assumed that the bronchus is blocked beyond the range of the bronchoscope. It is possible, of course, that a bubble of air, not a pathological lesion, prevented the radio-opaque material from filling the bronchus. Vascular shadows of some kind might also explain the appearance of blocking.

"I was particularly interested to note that the oblique film shows that the posterior part of this mass is rather sharply circumscribed. Arteriovenous aneurysm should be considered, but the fact that the red blood count was normal would be against that diagnosis. Another possibility is an aneurysm of the aorta, but this is a rare position for an aortic aneurysm.

"If this had been my patient, I would have done exactly what the attending physician did—perform an exploratory thoracotomy. In my opinion, the most likely diagnosis is tuberculosis. If it is tuberculosis, it is the third one I have seen like this in the past year. Both the other cases were quite similar to this one. I discussed one at a CPC a few months ago and then had a patient with a similar condition a month or two later. I do not recollect having seen more than three other cases before."



Figure 2. This PA chest view demonstrates minimal cylindrical bronchiectasis involving the basilar segmental bronchi bilaterally and failure of filing of the posterior basilar segment of the left lower lobe.

Dr. Louis Schiesari: "Any comments? Dr. Stauss, would you like to say something about your findings at the operation?"

FINDINGS AT OPERATION

Dr. H. K. Stauss: "In the preoperative period, the radiologist and I considered the possibility of sequestration. At the time of operation, we found this mass in the inferior pulmonary ligament on the left. During the early portion of the dissection, we discovered an aberrant vessel which indicated we were dealing with sequestration. This vessel, which was 4 mm. in diameter and about 1 cm. long, arose off the aorta and directly entered this mass. Much to my surprise, there were two additional vessels, one 6 mm. in diameter and the other 14 mm. in diameter. All three vessels arose off the aorta within an area a centimeter in length and about 4 cm. above the diaphragm.

"It was difficult to remove this lesion because the mass sat directly on top of these comparatively short vessels which in turn came off a relatively sclerotic aorta. We finally removed the lesion in a retrograde fashion by doing the lobectomy part of it first and then getting to the vessels which were satisfactorily ligated and divided.

"We still did not know what else there might be to this except we knew she had a sequestration. Dr. Schiesari's report added another element of surprise."

PATHOLOGIST'S REPORT

Dr. Schiesari: "The specimen consisted of the lower lobe of the left lung which weighed 250 gm. and measured 17 x 9 x 6 cm. The entire specimen had a soft, rubbery consistency and was slightly crepitant in the upper portion. The pleural surface varied from a pinkish-red to a blue color. Located on the medial aspect of the lower part of the lobe and immediately above the base, we felt a nodular mass with a cystic-like consistency. Several segments of arteries, the largest of which measured 0.6 cm. in diameter, protruded from this area. Cross section revealed an irregularly outlined cystic cavity which contained a fluidy brownish-tan material. After the cyst structure was com-

pletely opened, it extended about 1.3 cm. from the main bronchus. It measured about 4 cm. at its widest diameter, which was located at the base of the lobe; 1 cm. at its narrowest point, which was near the hilus, and 6 cm. in length. The wall was lined by a smooth, thin, yellowish-gray membrane which was firmly adherent to the surrounding parenchyma. The pulmonary parenchyma immediately surrounding this structure had a grayish-pale cut surface and was markedly increased in consistency. The bronchi were opened up from the hilus toward the periphery and were of normal caliber and appearance and did not communicate with the cystic structure.

"Microscopical examination of the cyst revealed it to be lined by a cylindrical, ciliated epithelium, which in many places was absent and was replaced by necrotic debris or by a denuded collagenized submuscosa. In the surrounding parenchyma, smaller cysts were seen with the same change noted in the main cyst. In many places remnants of bronchial cartilage were seen. The alveolar parenchyma was largely replaced by a chronically inflamed fibrous tissue which, here and there, contained residual alveolar structures lined by prominent cuboidal epithelium.

Thus, as Dr. Stauss pointed out, we are dealing with a cystic lesion not communicating either with the bronchial or vascular tree.

"As to the origin of this lesion it appears that Bryce's hypothesis is the one most commonly accepted. In studying the embryonal development of the mediastinal aorta this author and his associates came to the conclusion that the persistence of anomalous arteries is the cause of the sequestration. These persistent arteries, by exerting a traction on the developing buds of the segment of lung they supply, may cause some of these buds to become separated from their normal bronchial connections."

Dr. Griffin: "Cases have been reported in which bronchial communications with the cyst were found."

Dr. Schiesari: "Yes, sometimes there are small communications with the bronchial tree, but those are thought to be secondary to inflammation. Dr. Stauss, this being a congenital abnormality, why did it manifest itself clinically at such a late age?"

Dr. Stauss: "Probably, in this instance, because there was no bronchial communication with the sequestrated portion."

Dr. Harris: "Were there any other cysts besides the large one?"

Dr. Schiesari: "Yes, there were minute cysts scattered around the main cyst and these were microscopically similar to the main cyst."

Dr. Reid: "Dr. Harris, I understood you to say that sequestration was considered from the x-ray. What would the tip-off be from that standpoint."

Dr. Harris: "Sequestration should be a consideration in a fusiform mass in a posterior basilar segment which lies alongside the thoracic aorta. Chronic inflammatory changes associated with the mass are common."

Dr. Reid: "I did not know that these were more common on the left than on the right. I have seen several and it happens that all have been on the right in the right pericardiophrenic angle. All I have seen have been associated with cystic-like shadows."

ANATOMICAL DIAGNOSIS: Intralobar bronchopulmonary sequestration. ★★★

1190 North State Street

REFERENCE

1. Smith, R. Abbey: Some Controversial Aspects of Intralobar Sequestration of the Lung, Surg. Gynec. & Obst. 114:57-68 (Jan.) 1961.

RUSSIANS IN PARADISE

Latest story making the rounds of diplomatic circles has Khrushchev agreeing to negotiate over Berlin if the Western powers would admit that Adam and Eve were Russian. President Kennedy, General de Gaulle, and Prime Minister Macmillan had their doubts, but decided to ask Chancellor Adenauer about it. "Of course they were Russian," Adenauer replied. "They were born poor, with no house and nothing to wear—and thought they were in Paradise."

Insider's Newsletter



Dr. and Mrs. Orville J. Stone et al.

Medicine + Art = Success Formula For Doctor-Wife Team

Dr. and Mrs. Orville J. Stone of Galveston, Texas, who furnish about one-third of Journal MSMA's monthly humor, have cartooned their way through three years of residency, the birth of three sons, and right into a profitable business.

Dr. Stone is now in his third year of a dermatology residency at the University of Texas Medical Branch. The gagman of the team, he attributes half his family and his business sideline to the lack of social activity at Fort Leonard Wood, Mo., where he spent two years in service. Says Dr. Stone, "There was very little to do out there in the middle of the Ozarks, so we took up cartooning and had two more children."

The oldest boy, Gregory, now five, was born during Dr. Stone's last year of medical school. The fourth son, David, was born just a year ago. The middle two boys are Stephen, 3, and Douglas, 4.

Mrs. Stone, who has won first place for two years in the oil portraits division at the Galveston Art League Exhibit, is the artist in the partnership. Dr. Stone handles the business and merchandising as well as writing the gags. The 29-year-old artist and housewife says that writing gags has become as natural a process as walking for her husband. Finding time to draw them in a household with four young sons and a dog is quite another matter, however. Asked how she kept the menagerie out of the way while she worked, she replied tersely, "I have several time-proved methods—none of which I care to have put in writing."

Understandably enough, the children are fair-to-middling artists. Mrs. Stone says it is a little early to tell about David, but "he loves to sit under my drawing table and shake it and that must mean something." Recently, one of Greg's original yarns added $35 to the family bank account.

In the past three years, the Stones have sold over 500 cartoons to 39 publications. They now make about half their income from cartoons. Dr. Stone says, "This is partly because we're good, but more because residents are paid such low salaries." The Stones prefer to sell to medical publications because "their readers are highly educated and don't have to be hit over the head with a club to get a joke."

Many editors don't know a doctor is producing the gags and write to inquire how Mrs. Stone knows so much about scientific medicine. On the other hand, some editors are interested only in the cartoons, not in their creators. Right after David's birth, Mrs. Stone wrote an editor explaining that she was late with a correction because she had just had her fourth son. By return

mail came a note: "Dear *Miss* Stone, Here is the check for your finished cartoon."

Both the Stones are natives of Ottawa, Ill. Although their families are close friends, they didn't become "socially aware" of each other until the high school junior-senior prom. Dr. Stone attended the University of Illinois in Champaign where he received an award as the best premedical student in the basic sciences and was a member of Phi Beta Kappa. Mrs. Stone also attended the University for two years studying in the fine arts.

They were married in 1952, the summer before Dr. Stone started medical school at the University of Illinois College of Medicine in Chicago. Dr. Stone interned in St. Francis Hospital in Peoria, Ill.

Following the completion of his residency, Dr. Stone will remain at the University of Texas Medical Branch in a teaching and research position.

Mrs. Stone says that "cartooning is in our blood and we couldn't stop now if we wanted to, even though it means we're raising four litter bugs—artistic ones at that."

Examples of the Stone's piquant brand of humor may be found on pages 116 and 124. ★★★

THE UNSLEEPING AMERICANS

Newest explanation for those persons who count more sheep than winks comes from Colonel John Paul Stapp, physician-scientist assigned as special assistant in aerospace medicine, U.S.A.F. Aerospace Medical Center. Colonel Stapp, who will speak at MSMA's Symposium on Space Medicine during the 94th Annual Session, says that increasing numbers of Americans are suffering from acute emotional insomnia—and one of the causes is that they aren't busy enough enjoying their waking hours. Colonel Stapp (who gets along on four to six hours a night) says that increasing complaints about lack of sleep, poor sleep, and restless sleep are all forms of nervous outlets, indicating increasing neurosis.

Book Reviews

Key and Conwell's Management of Fractures, Dislocations, and Sprains (seventh edition). By H. Earle Conwell, M.D., associate professor of orthopedic surgery, University of Alabama School of Medicine, Birmingham, Ala., and Fred C. Reynolds, M.D., professor of orthopedic surgery, Washington University School of Medicine, St. Louis, Mo. 1,227 illustrations. St. Louis: C. V. Mosby Company, 1961. $27.00.

It has been my pleasure to review this monumental work brought up to date from the original edition in 1934. I have been privileged to own a copy of this book with each new edition, and this excellent job has been done by Dr. H. Earle Cornwell, Birmingham, Ala., and Dr. Fred C. Reynolds, St. Louis, Mo. This book of more than one thousand pages consists of 23 chapters and 1,227 illustrations.

The first six chapters are devoted primarily to the principles and general aspects of fractures. This includes the x-ray interpretation, temporary splinting, the equipment necessary for the treatment of fractures, and suggestions in plaster of paris technique, extending on through detailed information in reference to healing of the fractures and the complicating conditions which alter the rate of healing, such as alteration in blood supply, motion at the fracture site, infection and soft tissue damage to the parts about the location of the injury. The principles of fracture treatment and the most common mistakes are pointed out in a very readable and understandable fashion, such as the misuse of manipulation of a part under anesthesia in an effort to restore movement at an inappropriate time in the convalescence of that particular fracture. The importance of physical therapy in the treatment is also recorded, but emphasis is made on the fact that physical therapy does not simply consist of a diathermy machine or a heat lamp. Complications are discussed in reference to malunion, nonunion, alteration in bony growth and bone atrophy associated with the convalescence and treatment. Pathological fractures are discussed at length and the importance of recognizing these is emphasized. Open fractures are discussed and the importance of infection is especially recorded.

The second section of the book records treatment for specific injuries. This in turn breaks down the treatment of fractures to the various locations in the body, advising as to their special care, beginning with fractures of the jaws and face. Next it takes up the unusual and rare fractures and dislocations of the hyoid and fractures of the larynx and tracheal cartilages. The next chapter is devoted to injuries to the thorax. This includes the various procedures that are available to the usual operator in handling disorders involving this region.

Injuries to the spine are covered in profuse detail in the next eighty-odd pages, including problems associated with intraspinal lesions, such as protruded disks. Fractures of the shoulder girdle and shoulder are recorded with the various complications one can anticipate and how to deal with these. Fractures and injuries to the humerus, elbow, forearm, wrist, and hand follow and consume nearly 300 pages, with almost all of the anticipated problems covered in detail, including nerve injuries, plastic procedures and the unusual or so-called trick fractures that we occasionally encounter. Extensive references have been recorded.

Injuries to the pelvis are next discussed and following that injuries to the hip region are considered. Concerning the knee, the unusual disorders, such as ruptures of the musculotendinous junction of the lower quadriceps mechanism, are well demonstrated, as well as dislocations of the patella and the other unusual conditions that are occasionally, but not commonly, noted. Adequate emphasis is placed on the importance of the ligamentous structure about the knee and the follow-up care necessary. Fractures of the upper tiba with the complication of instability in the knee as an end result are well discussed and visualized by the excellent illustrations that are reproduced throughout the entire book.

The final portion of the book covers the leg, ankle, foot, and toes, showing the various disorders that one can anticipate, and the simpler methods of handling the disorders. The authors attempt to point out throughout the entire volume the importance of the use, and particularly the nonuse, of internal fixation.

It is the opinion of this reviewer that this is the most useful book that I have seen produced

in America on this subject, and it should be a must on the shelf of everyone who plans to treat fractures. Needless to say, there are many types of fractures in this volume that are exceptionally well demonstrated that should only be handled by someone thoroughly familiar with the details of fractures and the complications to be anticipated. Nevertheless, this volume simplifies the treatment of most fractures in a very gratifying and informative fashion. The authors, Drs. Conwell and Reynolds, are certainly to be congratulated for their infatigable work done on this monumental publication. I would highly recommend this book to all medical students, surgical residents, but especially to orthopedists and orthopedic residents, as a reference book for assisting them in the management of the unusual, as well as in helping them avoid making unforeseeable mistakes in the management of their cases.

(It may be of interest to note that this volume is written in memoriam to Dr. J. Albert Key, who was a native of Mississippi.)

THOMAS H. BLAKE, M.D.

The Cervix Uteri and Its Diseases. By Frederic Fluhmann, M.D., chief of obstetrics and gynecology, Presbyterian Medical Center, San Francisco, Calif., and clinical professor of obstetrics and gynecology, Stanford University School of Medicine, Palo Alto, Calif. 556 pages with illustrations. Philadelphia-London: W. B. Saunders was a native of Mississippi.)

This book represents an accumulation of a wealth of material on diseases of the cervix, drawn from at least 35 years of clinical and pathological material collected by Dr. C. Frederic Fluhmann plus many worthy contributions by his friends and other members of the medical profession.

A book devoted to diseases of the cervix is very timely, especially with so much emphasis being focused on the cervix in recent years in regard to the diagnosis of preinvasive cancer of the cervix, surgical correction of defects of the internal os, and problems of infertility secondary to cervical abnormalities.

The material is excellent for the gynecologist and should also prove of assistance to the interested specialist in the fields of pathology and roentgenology. It consists of histology, pathology, clinical manifestations, diagnosis, and medical, surgical, and radiological treatment of common and rare diseases of the cervix.

The contents of the book have been orderly divided into five sections. The first section extensively discusses the normal cervix in regard to its developmental anatomy, gross anatomy, histology, and physiology. The newer concepts of physiology, anatomy, and histology are given. In this section Dr. Fluhman advances a number of his views and introduces terms derived from many years of his own investigations.

The second section discusses in detail diagnostic procedures. The author emphasizes that even though a vast number of pathological disturbances occur to the cervix, there are few characteristic symptoms. Thus, a careful physical examination of the cervix on all women is an absolute necessity. The important subjective and objective symptoms of diseases of the cervix are given. The important special diagnostic procedures discussed are cytology (vaginal smears and cytological examination), tissue biopsy (use of Schiller's test, biopsy of cervix, and conizations), colposcopic examinations, and roentgenologic examination of the cervix.

The third section discusses congenital anomalies of the cervix, injuries, retained cervix after subtotal hysterectomies, elongation of cervix, strictures and atresia of the cervix. In view of recent estimates that the cervical factor may be the cause of sterility in 11 to 35 per cent of childless couples, the chapter on the cervical factors (anatomicopathologic and functional disorders) in infertility is of special interest.

The fourth section is devoted to the inflammatory diseases of the cervix. This includes cervicitis



Copyright 1967, Mississippi State Medical Association

"I take hormones."

(the most frequent problem faced by the gynecologist) erosion, and endocervicitis. The infectious granulomas such as tuberculosis, syphilis, and granuloma inguinale are discussed in detail, with a brief description of lymphogranuloma and chancroid. The rarer fungus (actinomycosis) and parasitic (schistosomiasis and echinococcosis) diseases are also discussed.

The fifth section discusses new growths (benign and malignant) of the cervix. This is the most rewarding section in the book and its discussion comprises almost a half of the volume. Mucous polyp (the tumor most commonly encountered by the gynecologist) and other benign growths are aptly covered. The chapter on dysplasia, carcinoma in situ, and preclinical invasion is excellent. Fluhmann's personal experience with this entity, plus a summation of the facts extracted from at least 20 years of voluminous literature on this subject is most rewarding. This chapter is invaluable in helping us realize the main objective in the problem of cervical cancer is to recognize the disease in the preinvasive stage when it is readily curable. Chapters on invasive carcinoma, radiotherapy, surgical treatment, and management of recurrences, palliation plus terminal care are very informative.

Section six presents normal and abnormal conditions of the cervix during pregnancy. It discusses normal anatomy, functional changes, cervical complications, and injuries of pregnancy and labor. The more recent syndrome of incompetent cervix is well presented, including a detailed management of it in gynecological and obstetrical patients. This presentation is well illustrated by operative and schematic photographs. The final chapter deals with dysplasia, preinvasive and invasive carcinoma during pregnancy including its management during the various trimesters of pregnancy.

This book is well written. Each chapter is followed by very complete bibliographies. The material in this book will be invaluable to the practicing physician as a reference volume.

FRANK T. MARASCALCO, M.D.

Domestic Journals

The Use of Stimulating Drugs. D. W. Swanson, M.D., and J. A. Smith, M.D.: Am. J. Psychiat. 118:419-422 (Nov.) 1961.

This is a very timely, although brief, article which should tend to minimize unrealistic optimism related to recent pharmacological developments in treatment in psychiatry. The authors call attention to the large number of new preparations which are described by enthusiastic comments in the literature. They also point out that such statements are not new but have been made in the past about drugs since virtually abandoned as treatment agents. Specifically the authors point out that in 1936 hematoporphyrin and in 1941 Metrazol were given glowing reports. The grouping of the antidepressant drugs together as "stimulating drugs" is justified by the authors in spite of the use of other designations such as "psychic energizer," "thymoleptic," or "normalizer" drugs.

It was pointed out that the search for effective stimulating drugs is complicated by the many undesirable side effects encountered. Convulsive seizures have quite commonly been recorded with this group of drugs in more than therapeutic doses. The writers point out that oftentimes the drugs have toxic effects on other systems than the central nervous system and that at times these have been quite serious side effects, notably the severely hepatotoxic complications which ushered in the newer group of drugs. Untoward psychiatric effects are described.

The rather universal period of depression which follows prolonged stimulation of the central nervous system is felt to give rise often to the problem of psychological habituation. In effect, the patients take more of the drug to avoid the "let-down" feeling following the interval of stimulation. The writers call attention to the fact that in the 19th century, cocaine was widely used as a stimulant and euphorient before it was recognized to have severe addictive qualities. The writers give two case reports of patients habituated to drugs in the amphetamine series and both of the cases reported also reveal clinical psychiatric syndromes indistinguishable from schizophrenia.

In their final comments the writers call attention to the fact that the newer drugs do seem more attractive than earlier drugs because of the fact that the post drug "let-down" is less and that convulsions have not been prominent in the therapeutic range. However, they feel that these drugs have not yet stood the test of time. The writers very appropriately call attention to the fact that treating depressed patients with current drugs may lull the clinician into taking a more lax stance and lessening his precautions against suicide, thereby increasing the morbidity and mortality associated with the depressive illnesses.

L. C. HANES, M.D.

Books Received

JOURNAL MSMA has received the following books for review. Selections will be made for more extensive reviews in the interest of the readers and as space permits. Further information on

the books listed will be furnished on request. Physicians are urged to submit reviews of additional books which, in their opinion, merit comment.

Textbook of Endocrinology. By Robert H. Williams, M.D., chief, Endocrinology and Metabolism Division, and physician-in-chief, University Hospital, executive officer and professor of medicine, University of Washington Medical School, with contributions by 21 authorities. Third Edition. 1,204 pages with illustrations. Philadelphia: W. B. Saunders Company, 1962. $21.00.

Carcinoma of the Cervix. By John B. Graham, M.D., chief gynecologist, Roswell Park Memorial Institute, associate professor of gynecology, University of Buffalo Medical School; Luciano S. J. Sotto, M.D., consultant in gynecology, Philippine General Hospital, instructor in gynecology, University of the Philippines College of Medicine and Frank P. Paloucek, M.D., attending gynecologist, Roswell Park Memorial Institute, instructor in gynecology, University of Buffalo Medical School. 487 pages with illustrations. Philadelphia: W. B. Saunders Company, 1962. $14.00.

The Stages of Human Development before Birth. By E. Blechschmidt, M.D., professor of anatomy, director of the Institute of Anatomy, University of Gottingen. 684 pages. Philadelphia: W. B. Saunders Company, 1961. $23.00.

Clinical Obstetrics. By Benjamin Tenney, M.D., clinical professor of obstetrics and gynecology, Harvard Medical School, director of the Department of Obstetrics and Gynecology, the Boston City Hospital, and Brian Little, M.D., associate in obstetrics and gynecology, Harvard Medical School, associate director of the Department of Obstetrics and Gynecology, the Boston City Hospital. 440 pages with illustrations. Philadelphia: W. B. Saunders Company, 1961. $8.50.

Psychiatry: Biological and Social. By Ian Gregory, M.D. 577 pages. Philadelphia: W. B. Saunders Company, 1961. $10.00.

Disturbances of Heart Rate, Rhythm and Conduction. By Eliot Corday, M.D., assistant clinical professor of medicine, School of Medicine, University of California, Los Angeles, attending staff, Cedars of Lebanon and Mt. Sinai Hospitals, Los Angeles, and David W. Irving, M.D., clinical assistant, School of Medicine, University of California, Los Angeles, research associate, Cedars of Lebanon Hospital, Los Angeles, research fellow, Los Angeles County Heart Association. 357 pages with illustrations. Philadelphia: W. B. Saunders, 1961. $8.50.

Clinical Laboratory Diagnosis. By Samuel A. Levinson, M.D., consultant, University of Illinois Research and Educational Hospitals Laboratories, pathologist and director of laboratories, L. A. Weiss Memorial Hospital, Chicago, and Robert P. MacFate, Ph.D., chief, Division of Laboratories, Board of Health, City of Chicago, director of laboratories, Municipal Contagious Disease Hospital. Sixth Edition. 1,274 pages with 227 illustrations. Philadelphia: Lea & Febiger, 1961. $15.00.

Differentiation between Normal and Abnormal in Electrocardiography. By Ernst Simonson, M.D., professor of physiological hygiene, University of Minnesota, consultant in electrocardiography at Mount Sinai Hospital and Veterans Administration Hospital, Minneapolis, Minn. 328 pages with illustrations. St. Louis: The C. V. Mosby Company, 1961. $13.50.

Problems in Surgery. By Frank Glenn, M.D., Lewis Atterbury Stimson Professor of Surgery, Cornell University Medical College, surgeon-in-chief, the New York Hospital-Cornell Medical Center, and edited by George E. Wantz, Jr., M.D., assistant professor of clinical surgery, Cornell University Medical College, assistant attending surgeon, the New York Hospital-Cornell Medical Center. 512 pages with illustrations. St. Louis: The C. V. Mosby Company, 1961. $16.50.

Atlas of Clinical Endocrinology. By H. Lisser, M.D., clinical professor emeritus of medicine and endocrinology, University of California School of Medicine, and Roberto F. Escamilla, M.D., clinical professor of medicine, University of California School of Medicine, civilian consultant and chief of Endocrine Clinic. Letterman Army Hospital. Second edition. 489 pages with 165 plates. St. Louis: The C. V. Mosby Company, 1962. $23.00.

Postpartum Psychiatric Problems. By James Alexander Hamilton, M.D., associate clinical professor of psychiatry, Stanford University School of Medicine, chief of service, psychiatry, Saint Francis Memorial Hospital. 156 pages. St. Louis: The C. V. Mosby Company, 1962. $6.85.

Mechanisms of Disease: An Introduction to Pathology. By Ruy Perez-Tamayo, M.D., professor and director of the Department of Pathology of the School of Medicine, National University of Mexico. 512 pages with illustrations. Philadelphia: W. B. Saunders Company, 1961. $14.00.

MEETINGS

NATIONAL AND REGIONAL

American Medical Association, June 24-28, 1962, Chicago, Ill. F. J. L. Blasingame, Executive Vice President, 535 N. Dearborn St., Chicago 10, Ill.

American Academy of General Practice, April 6-13, 1962, Las Vegas, Nev. Mr. Mac F. Cahal, Executive Director, Volker Blvd., at Brookside, Kansas City 12, Mo.

American College of Surgeons, Sectional Meeting, March 26-28, 1962, Memphis, Tenn. William E. Adams, 40 E. Erie St., Chicago 11, Secretary.

New Orleans Graduate Medical Assembly, March 12-15, 1962, New Orleans, La. Mannie D. Paine, Jr., 1430 Tulane Ave., Room 105, New Orleans 12, Secretary.

STATE AND LOCAL

Mississippi State Medical Association, May 8-10, 1962, Jackson. Mr. Rowland B. Kennedy, Executive Secretary, 735 Riverside Drive, Jackson.

Mississippi Chapter, American College of Surgeons, Nov. 16, 1962, Heidelberg Hotel, Jackson. Edward C. Hamilton, 14th St. and 25th Ave., Gulfport, Secretary.

Amite-Wilkinson Counties Medical Society, First Tuesday March, June, September, December. S. E. Field, Centreville, Secretary.

Central Medical Society, First Tuesday Monthly, 6:30 p.m., Robert E. Lee Hotel, Jackson. George E. Gillespie, 514-A East Woodrow Wilson Drive, Jackson, Secretary.

Claiborne County Medical Society. D. M. Segrest, Port Gibson, Secretary.

Clarksdale and Six Counties Medical Society, Second Wednesday March and November, 2:00 p.m., Clarksdale. Whitman B. Johnson, Jr., 645 Evelyn Ave., Clarksdale, Secretary.

Coast Counties Medical Society, First Wednesday March, June, September, and November. Charles N. Floyd, 1412-23rd Ave., Gulfport, Secretary.

Delta Medical Society, Second Wednesday April and October. Howard A. Nelson, 308 Fulton St., Greenwood, Secretary.

DeSoto County Medical Society, Second Thursday January, April, July, and October, 1:00 p.m., Hernando Motel Cafe, Hernando. L. L. Minor, Route 9, Memphis 9, Tenn., Secretary.

East Mississippi Medical Society, First Tuesday February, April, June, August, October, and December. Hugh S. Rayner, Jr., 1216-21st Ave., Meridian, Secretary.

Homochitto Valley Medical Society, Fourth Tuesday Monthly, 7:30 p.m., Natchez Country Club, Natchez. W. T. Colbert, Natchez General Hospital, Natchez, Secretary.

North Central District Medical Society, Second Wednesday March and September. Robert B. Townes, Jr., 1196 Mound St., Grenada, Secretary.

Northeast Mississippi Medical Society, Second Tuesday March, June, September, and December, Tupelo. Thomas W. Wesson, 421 Main St., Tupelo, Secretary.

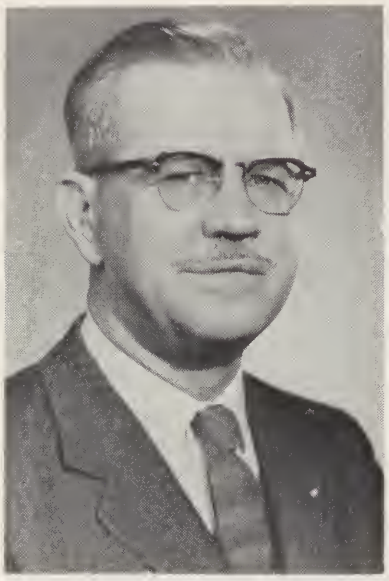
North Mississippi Medical Society, First Thursday January, April, and October, Oxford. Marcus E. Morrison, 512 Van Buren Ave., Oxford, Secretary.

Pearl River County Medical Society, Second Monday March, June, September, and December. Samuel O. Massey, Jr., 220 E. Canal St., Picayune, Secretary.

South Mississippi Medical Society, Second Thursday March, June, September, and December. Thomas F. Puckett, 715 Arledge St., Hattiesburg, Secretary.

Tri-County Medical Society, Second Tuesday March, June, September, and December. A. V. Beacham, Magnolia, Secretary.

West Mississippi Medical Society, Second Tuesday January, April, July, and October, 7:00 p.m., Old Southern Tea Room, Vicksburg. Tom H. Mitchell, The Street Clinic, Vicksburg, Secretary.



The President Speaking

'The Voluntary Way'

LAWRENCE W. LONG, M.D.
Jackson, Mississippi

MEDICINE HAD A WINNING BATTLECRY a decade ago when it engaged and defeated the Wagner-Murray-Dingell socialized medicine proposal. Many physicians will remember the familiar slogan, "The Voluntary Way is the American Way" and it sold the point, too. In the present day of fragmented socialization, a revival of this simple emphasis on voluntarism might increase our effectiveness. The catchline referred, of course, to voluntary health insurance and prepayment plans.

Since the days of Truman and Ewing, Blue Shield has more than doubled its enrollment, now exceeding 50 million Americans. Health insurance protects another 75 million and there are an additional 90 million contracts on the nonsurgical side of the picture. But liberal, all-out welfare proponents of compulsory care under Social Security like to talk insurance and prepayment down because Americans have voiced a mighty mandate of preference for voluntarism through enormous purchase of such contracts. Now, variations and combinations are making these plans all the more effective, easier to purchase, and more widely distributed among all citizens of all ages. It is upon these developments that we will do well to place additional emphasis.

The 1962 regular session of our legislature has before it a bill on the "Connecticut Plan," a program of pure private insurance with no governmental funds under which insurance companies are permitted to pool their underwriting and actuarial resources to produce either individually or in combinations very low cost health insurance. The voluntary prepayment plans have made astonishing strides in extending protection to the senior citizen age level.

Given a choice, the American people will choose the voluntary way. Given a private health financing plan that will work, they will turn away from federal compulsion. Given the facts about socialization's high costs and minimum benefits, they will shun it. And if informed of the final goals of a planned social economy which so often begins with state medicine, Americans will fight to remain free.

Physicians have an unparalleled opportunity to make the voluntary way the permanent American way. A revival of interest in private financing of health care costs through voluntary insurance and prepayment mechanisms may be another useful weapon in deciding once and for all *who* shall pay the bill. ★★★

JOURNAL OF THE
MISSISSIPPI STATE
MEDICAL ASSOCIATION

Volume III, Number 3

March 1962

EDITORIALS

Subsidized Suicide

He who rides the tiger dare not dismount.
—Old French proverb

I

The American Hospital Association has indicated its willingness to ride the tiger. During a special called meeting of the AHA house of delegates at Chicago in January, representatives of the nation's hospitals said formally that some form and amount of federal funds were necessary to insure proper care for the aging, that Blue Cross should administer this program, and that they were, therefore, not disposed to concede the necessity of the King-Anderson proposal as such at this time.

The Mississippi Hospital Association opposes compulsory care for the aging under Social Security and sent an instructed delegate to the AHA meeting. The Mississippi Hospital and Medical Service, our Blue Cross-Blue Shield, opposes the program, too. Both organizations have been forceful spokesmen against the socialization of medicine and hospital services and in working effectively for voluntary, private financing of medical care costs. And while neither subscribes to the thinking of their liberally inclined colleagues on these counts, they are both destined to feel the effects of a decision they did not make, *if* and *when* this die is cast.

For those committed to support of the private practice of medicine, voluntary financing of medical care costs, and to opposing the extravagant, unnecessary program of compulsory care under Social Security, it is difficult to rationalize the position of the American Hospital Association. Almost nobody denies the dedication of hospital people to their worthy calling. Few will disagree that the economic problems of hospital service are crucial, demanding the utmost in management skills. Surely, able and competent hospital leaders recognize that there is a price to be paid for federal money in federal programs just as there is a price to be paid for goods and services in a free economy.

II

It is difficult to understand why any voluntary prepayment or health insurance plan needs subsidy from any source. And some of the most encouraging gains are being made in the over-65 age group because 53 per cent of all such senior Americans now have private, voluntary health coverage. The 1961 score on all age groups is enormously impressive: 132 million have hospital plans; 123 million, surgical; 88 million, medical; 27 million, major medical; and 42 million, assured income during illness. Does this state of affairs cry out for subsidy?

And for those who need help, there are sound locally controlled programs. Kerr-Mills is working and it will work even better if given half a chance. Private philanthrophy in its many forms is not to be discounted nor are nonfederal programs of care for the indigent found at municipal, county, and state levels.

Some seem to forget other means, apart from out-of-pocket payment, for financing health care. None of these relates to federal funding, either. Personal accident policies protect 6.5 million Americans and another 20.5 million have so-called dread disease coverage. Accidental death and dismemberment contracts offer financial assurances to 21 million while 130 million Americans have incorporated some form of financial benefit during illness and disability in their life insurance programs. Countless millions are indirectly, but nonetheless positively, protected against stated disease and injury conditions by liability and workmen's compensation insurance.

And to top it off, as much as $100 per week may be excluded from federal income taxes during illness.

III

Since Blue Cross is the largest single program in this vast scheme of voluntarism, leaders of the American Hospital Association could hardly conclude that they are selling a service in a declining market. Second, they surely recognize the increasing ability and willingness of Americans to provide for themselves in health maintenance. Finally, it seems that they should appreciate fundamental political facts of life.

To conclude that a need exists for direct federal subsidy for any age group's health care without local political control and a probing means test is to buy the King-Anderson principle with a sugar frosting. The proponents of compulsory federal health programs appear to have little regard for the means by which their goals are achieved and if there's a moral to this, it's the critical matter of dismounting from the tiger.

By no stretch of the imagination is the least of dangers implicit in AHA's decision the tragic possibility that nobody on the health care team will prevail. The house divided is vulnerable, indeed, and the King-Anderson-Cohen-Ribicoff-Reuther crowd will make the most of any opportunities to consummate socialized medicine.

IV

So the thesis is this: in seeking solutions to your problems, don't subsidize your own suicide. If you're winning the game 5 to 2 in the seventh inning, it is not necessary to forfeit to the other team.

Responsible leaders of the Mississippi Hospital Association and the state's Blue Cross plan know that any direct federal health program will erode away the gains in voluntary prepayment. They have so spoken and theirs is an example for their counterparts in other states to follow.—R.B.K.

Was Ernie Kovacs' Death Avoidable?

Everybody who likes to laugh—and that's nearly everybody—was saddened because of the tragic death of that likeable, cigar-smoking comedian, Ernie Kovacs. He was killed in a single car automobile accident on a rain-slicked Los Angeles freeway when his compact station wagon struck a utilities pole. Seldom has Hollywood accorded a member of the entertainment world a greater display of genuine affection than Ernie Kovacs received.

Commenting on the unfortunate occurrence, a physician on the staff of the State Board of Health observed that Mr. Kovacs was not using a seat belt at the moment of impact. The doctor noted that the coroner's report stated that there were neither external nor internal injuries with the single exception of the fracture at the base of the skull. Said the physician: "Studying the details of the accident as released by the press, one can readily understand that (death) was obviously due to the body being thrown against the roof of the automobile with great force. It is therefore beyond the realm of speculation that the death of Mr. Kovacs was fully preventable had he used the safety belts."

Although the doctor concedes his having formed his opinion on other than primary scientific data, his point is well made. And it's well established that seat belts can and do save lives. May there be no repetition of this tragedy.—R.B.K.

This Business of Bionics

The science of bionics, still in swaddling clothes, is playing a key role as one of the more useful tools in space age technology. And what exactly is bionics? It's the study of life systems and it owes its name to an Air Force medical officer, one of its pioneers, Dr. Jack E. Steele. Coined from the Greek *bios,* meaning life, bionics may reverse the traditional developmental process in science and industry. Almost without variation during recorded history, the scientist, designer, engineer, and technician have developed and built a device to accommodate existing life systems. Now, bionics promises an approach where the

physician, biologist, and other scientists determine the principle of a life system, create a mathematical model of it, and have the engineers make the machine.

For example, what are the secrets of life systems which permit bats to use the radar principle —or, more properly, sonar? How is it that birds can navigate with unerring accuracy over continents, rivaling the best professional air crews in the big jets? A firefly produces cold light, a dog can locate a single scent in a world of billions, the owl has nearly perfect night vision, and the rattlesnake was using an infrared homing-striking system thousands of years before man. The bionicist wants to know why and how.

Electronics scientists, directing their thinking in terms of the body's ability to repair and replace itself, are now designing computers which are programmed to adapt to environmental changes with the hope of making them some day able to repair themselves. Much of this thinking comes from the new science of cybernetics in which the human nervous system is described as being a digital computer that handles and processes data for the body.

The grid of the beetle's eye with its ability to measure light changes is the basis for a new device which measures the ground speed of supersonic aircraft. The designers of atomic submarines are learning tricks from the porpoise which, according to principles of hydrodynamics, can't swim as fast as it does.

Bionics, an up and coming science with a built-in practical application, really isn't new, its core of physicians and biologists say. The Bible observes abilities and achievements of nonhuman life systems, notably those of ants, spiders, and locusts. Roman and Greek mythology abound with similar examples. The Renaissance had its da Vinci who studied birds and tried to fly with models of their wings.

Now a team of physicians, biologists, and associated scientists are probing the more subtle aspects of life to make life better in this business of bionics.—R.B.K.

DEATHS

CARAWAY, MARGARET ROE, Gulfport. M.D., Mississippi Medical College, Meridian, 1910; the first woman physician to receive a medical degree from a college in Mississippi; died Jan. 17, 1962, aged 82.

LAND, GEORGE WILLIAM, Louin. M.D., Vanderbilt University School of Medicine, Nashville, Tenn., 1909; member of the American Medical Association; emeritus member of MSMA and member of the Fifty Year Club; practiced medicine for 58 years; died Jan. 12, 1962, aged 86.

LOVORN, EVERETT, Louisville. M.D., Mississippi Medical College, Meridian, 1911; died Jan. 4, 1962, aged 84.

SHARON, JAMES PHILIP, Seminary. M.D., St. Louis University School of Medicine, Mo., 1923; associated with the Mississippi State Board of Health and Veterans Administration; member of the American Medical Association; died Jan. 5, 1962, aged 66.

WINDHAM, JAMES HERBERT, Pontotoc. M.D., Memphis Hospital Medical College, Tenn., 1904; Pontotoc Health Officer for eight years; retired from active practice in 1955; died Jan. 14, 1962, aged 86.

NEW MEMBERS

BREELAND, JEWELL JEROME, JR., Brookhaven. Born Tylertown, Miss., Jan. 13, 1930; M.D., University of Mississippi School of Medicine, 1960; interned Memorial Hospital of Chatham County, Savannah, Ga.; U. S. Air Force, four years; elected Dec. 19, 1961, by Tri-County Medical Society.

BUCKINGHAM, JOHN LADD, Jackson. Born Vero Beach, Fla., April 14, 1933; M.D., Bowman Gray School of Medicine of Wake Forest College, Winston-Salem, N. C., 1959; interned Grady Memorial Hospital and Emory University Hospital, Atlanta, Ga.; one year internal medicine residency, Georgia Baptist Hospital; elected Nov. 7, 1961, by Central Medical Society.

GRIFFING, JOSEPH CHARLES, Picayune. Born Natchitoches, La., Jan. 23, 1931; M.D., Tulane University School of Medicine, New Orleans, La., 1955; interned Charity Hospital of Louisiana, New Orleans; radiology residencies, Southern Baptist Hospital, one year, and Charity Hospital of Louisiana, two years; member of the American Medical Association and the American College of

Radiology; certified by the American Board of Radiology; U. S. Public Health Service, two years; elected Dec. 11, 1961, by Pearl River County Medical Society.

MAGEE, DENNIS ELTON, Picayune. Born Tylertown, Miss., Aug. 18, 1931; M.D., University of Mississippi School of Medicine, Jackson, 1958; interned Mississippi Baptist Hospital, Jackson; elected Dec. 11, 1961, by Pearl River County Medical Society.

TUMA, ARTHUR T., Jackson. Born Dickinson, N. Dak., May 13, 1913; M.D., Creighton University School of Medicine, Omaha, 1957; interned Nebraska Methodist Hospital, Omaha; residencies, Nebraska Methodist Hospital and University of Nebraska Hospital, Omaha; member of the American Medical Association, American College of Radiology, American Physical Society, Mississippi State Radiological Society, and the Radiation Research Society; certified by the American Board of Radiology; elected Jan. 2, 1962, by Central Medical Society.

PERSONALS

S. H. BARRON has been named a director of the Marion County Chamber of Commerce.

L. W. BROCK of McComb has been re-elected president of the Pike County Fair and Livestock Association.

WILFRED Q. COLE and L. C. HANES of Jackson have been named directors of the Family Service Association. New officers and directors were installed at the Feb. 8 meeting of the group.

CLYDE H. GUNN of Moss Point has been elected to a five-year term as a member of the board of trustees of the Moss Point Municipal Separate School District. Dr. Gunn was named by the city council to the term effective March 1.

L. C. HANES, JR., associate professor of the Department of Psychiatry, University of Mississippi School of Medicine, has been named by the Jackson Council on Alcoholism as delegate to the National Council. At the same meeting, the Board of Directors named THOMAS M. DAVIS, A. L. GRAY, WILLIAM E. LOTTERHOS, ESTELLE A. MAGIERA, GEORGE E. RILEY, and ROLAND E. TOMS to the Advisory Committee.

ARCHIBALD HEWES is the new commander of the Mississippi Coast Power Squadron, a unit of the United States Power Squadrons.

N. C. KNIGHT, SR. of Jackson, medical director of the Mississippi School Health Service and director of health education for the State Board of Health, was recently featured by the *Northside Reporter* as "Pride of Northside." The *Reporter* cited Dr. Knight as "a man who is responsible for health services to some half million school children in Mississippi."

SAM LEVI of Ocean Springs was named a fellow of the American College of Radiology at the group's annual meeting Feb. 9 in New York City.

JOHN B. O'KEEFE of Biloxi was named vice president of the Harrison County Mental Health Association at the group's organizational meeting. Dr. BEDFORD FLOYD of Gulfport was named to the board of directors and A. N. MORPHY of Gulfport was named a professional advisor.

H. C. RICKS was installed as surgeon by Jefferson Davis Camp, No. 635, Sons of Confederate Veterans at a recent meeting.

W. W. WALLEY of Waynesboro has been awarded the highest honor in Scouting, the Silver Beaver award. The award is bestowed upon men who have given outstanding service to boyhood over an extended period of time.



"This is for your flipside."

MSMA-Sponsored 'Good Samaritan' Bill Passes House, Is Now Pending before Senate Committee

Mississippi may have a "Good Samaritan" law on its statute books soon, correcting a potential liability threat of many years standing. This was the prediction of Dr. William E. Lotterhos, Jackson, chairman of MSMA's Council on Legislation.



Sen. W. M. Jones, left, who introduced the "Good Samaritan" bill in the Senate, confers with Dr. Lawrence W. Long, MSMA president, center, and Dr. William E. Lotterhos, chairman of MSMA's Council on Legislation.

The measure has been enacted by the House of Representatives and was pending before the Senate at press time.

Dr. Lotterhos said the measure was introduced before both houses of the 1962 regular session in January. Reps. Sutton Marks (Hinds) and Thompson McClellan (Clay) co-sponsored the bill, H.B.132, in the House of Representatives, and Sen. W. M. Jones, Brookhaven, introduced the Senate version, S.B.1586. The proposal was pending before the Senate Committee on Judiciary at this reporting along with a slightly amended House version.

Text of the proposal, as amended, states that ". . . no person who, in good faith and in the exercise of reasonable care, renders emergency care to any injured person at the scene of an emergency, or in transporting said injured person to a point where medical assistance can be reasonably expected, shall be liable for any civil damages as a result of any acts or omissions by such persons in rendering the emergency care to said injured person."

Reps. Marks and McClellan steered the measure to House passage by a vote of 83 to 31. Consideration in the Senate is expected.

Eight states have passed "Good Samaritan" laws and such measures are pending before four 1962 legislative sessions. States with the law on



Rep. Thompson McClellan, seated left, and Rep. Sutton Marks, seated right, who steered the "Good Samaritan" bill to House passage, are shown with Dr. William E. Lotterhos, standing left, and Dr. Lawrence W. Long.

their books are California, Maine, Nebraska, Oklahoma, South Dakota, Texas, Utah, and Wyoming. States considering enactments are Georgia, Massachusetts, Mississippi, and New York.

" 'Good Samaritan' statutes are realistic and equitable," Dr. Lotterhos said. "Before enactment of the California law, it was difficult to find anyone who would stop at the scene of an accident, so widespread were suits against those who offered assistance."

The MSMA legislative chairman pointed out that the law applies to everyone, not merely physicians. Most such enactments as well as proposals now pending are similar, he said.

Key association leaders, including Dr. Lawrence W. Long, president, have been conferring with legislators over the measure. The conclusive vote in the House points up good chances for enactment by the Senate, they said, provided sufficient interest in final passage is generated among Senate members.

Ob-Gyn Board Announces April Examinations

The American Board of Obstetrics and Gynecology has announced its next scheduled examinations, Part II, oral and clinical, for April 9. The tests will be conducted by the entire Board at the Edgewater Beach Hotel in Chicago.

Formal notice of the exact time of each candidate's examination will be sent him in advance of the examination dates, according to Dr. Robert L. Faulkner, secretary of the Board. Candidates who participated in the Part I Examinations will be notified of their eligibility for the Part II Examinations as soon as possible, said Dr. Faulkner.

The deadline date for the receipt of new and reopened applications for the 1963 examinations has been advanced to July 1, 1962. Further information may be secured from Dr. Faulkner at 2105 Adelbert Road, Cleveland 6, Ohio.

Annual Session Is Upped to May 7

Dates for MSMA's 94th Annual Session have been moved up one day, according to Dr. Lawrence W. Long, president, and Dr. C. G. Sutherland, chairman of the Council on Scientific Assembly. The session will begin with the House of Delegates on Monday, May 7, 1962, immediately following the lunch hour.

"The Board of Trustees voted unanimously to make the change," Drs. Long and Sutherland said, "after considering the tight schedule brought about by the increased number of scientific sections and the added Symposium on Space Medicine.

"Without the change," they emphasized, "there would have been insufficient time for reference committee hearings which should be so arranged as to permit all to be heard in debate."

The revised schedule will set the House of Delegates opening meeting on Monday afternoon, May 7. Scientific activity will begin Tuesday with the Section on Pediatrics in the morning and the Section on Medicine, Tuesday afternoon. Other section schedules remain unchanged and the Symposium on Space Medicine will be conducted Wednesday morning when no other activity is scheduled.

Reference committees of the House of Delegates will meet Tuesday in the morning and afternoon and again on Wednesday afternoon. The final meeting of the delegates will follow the traditional Thursday afternoon scheduling when 1962-63 officials are elected.

Work Advances on UMC Wing Despite Harsh Weather



A hard-working crane spirals against the sky as construction crews work steadily ahead on the new research wing for the University of Mississippi School of Medicine. Although the unusually harsh winter weather has set the project somewhat behind schedule, workmen are fast catching up. Target date for completion is February 1963. The project is contracted to cost 3 million dollars and will be financed half by a state appropriation and half by federal funds. Approximately 150 labs will occupy most of the 122,422 square feet of extra floor space.

Calhoun City Physician Honored for 50-Year's Service

Dr. William Jasper Aycock, who started his practice in the horse and buggy days and lived almost his entire life in Calhoun County, was



Mrs. R. E. Anderson of Corinth fastens a Fifty Year Club pin on the lapel of her father, Dr. William Jasper Aycock. Dr. Aycock received the pin and certificate in special services held Dec. 24.

honored on Dec. 24 for his years of medical service.

In a special service held at the First Baptist Church in Dr. Aycock's hometown of Calhoun City, the 73-year-old general practitioner received his Fifty Year Club pin and certificate.

Dr. Aycock was born in Phoeba, Miss. and received his premedical training at Mississippi College. He received his M.D. degree from Memphis Hospital Medical College in Memphis, Tenn. and did postgraduate work at the New York Postgraduate School and Tulane University School of Medicine.

He has twice been president of the Northeast Mississippi Medical Society and is an emeritus member of MSMA and a member of AMA.

House Officials Call for Resolutions

Got a resolution for the House of Delegates to consider at the 94th Annual Session, May 7-10?

If so, say Speaker B. B. O'Mara, Biloxi, and Vice Speaker Howard A. Nelson, Greenwood, send it to MSMA headquarters at Jackson for printing and inclusion in the delegates' folders. Advance submission insures that all members of the house will have copies at the opening meeting.

While only members of the house may introduce resolutions, Drs. O'Mara and Nelson reminded, local medical societies and individual physicians may have matters to present. By securing official local society action on such matters, delegates can introduce them as society-sponsored. A similar procedure applies to those having resolutions where a delegate may be asked to introduce it by request.

All resolutions will be considered by appropriate reference committees, the Speaker and Vice Speaker said. Final disposition will be made by vote in the house at the adjourned meeting on Thursday, May 10.

Speakers Announced for Cardiovascular Seminar

Five out-of-state physicians will be the guest speakers for the Ninth Annual Cardiovascular Seminar set for April 4-6 at the University of Mississippi School of Medicine.

The seminar is sponsored jointly by the Mississippi Heart Association and the University.

Speakers will be Drs. Arthur DeBoer, Chicago, Ill.; Edward C. Lambert, Buffalo, N. Y.; Arthur M. Master, New York City; Travis Winsor, Los Angeles, Calif., and Earl H. Wood, Rochester, Minn.

Dr. DeBoer's topics will be "Congenital Heart Surgery," and "Congenital Heart Disease." He will also appear on a panel discussion of Peripheral Vascular Disease."

Dr. Master will discuss "Criteria of the 'Two-Step' Test," "The Emergency Treatment of the Complications of Coronary Occlusion," "The Role of Effort in Coronary Occlusion," and will participate in a discussion of "Diagnosis and Treatment of Angina Pectoris."

Dr. Winsor is scheduled to talk on "Hypertension," "Electrocardiogram Interpretation," "Cardiac Emergencies, Including Arrhythmias," and will contribute to panel discussions on "Diagnosis and Treatment of Angina Pectoris" and "Peripheral Vascular Disease."

Dr. Wood will report on "Use of Indicator-Dilution Technics in the Detection and Quantitation of Valvular Regurgitation," "Studies of the Effects of Acceleration," and "Observations Regarding the Effects of Heart Rate and Atrial Contraction on Cardiac Output."

Dr. Lambert's topics are to be announced.

Presiding over the six sessions will be Drs. Raymond F. Grenfell, David J. Vanlandingham,

Willard H. Boggan, Jr., Watts Webb, Rush E. Netterville, and Lucian M. Ferris.

The program will begin at 8:00 a.m. on April 4 with registration.

VP's Inspect Scale Model Of Redstone Mercury Project



MSMA's vice presidents look over a scale model of the Redstone Mercury Project at the headquarters building in Jackson. The Mercury space capsule will be a featured exhibit at the 94th Annual Session in conjunction with the Symposium on Space Medicine. From left to right are Dr. Joseph L. Guyton of Pontotoc, Dr. A. T. Tatum of Petal, and Dr. Tom H. Mitchell of Vicksburg.

Medical Specialists Address Midwinter G.P. Seminar

Specialists in four medical fields spoke during the Annual Midwinter G.P. Seminar held Feb. 15 in Jackson. Sponsors of the yearly event are the Mississippi Academy of General Practice, which grants six hours of Category 1 credit, and the University of Mississippi School of Medicine.

Dr. Edward L. Compere spoke on "Practical Management of More Common Fractures." Dr. Compere is professor and chairman, Department of Orthopedic Surgery, Northwestern University School of Medicine, Chicago, Ill. "The Management of Menopause" was discussed by Dr. Nicholas W. Fugo, professor and chairman, Department of Obstetrics and Gynecology, University of West Virginia Medical Center, Morgantown, W. Va.

Old age as an active, dynamic and vital state was the topic of Dr. Thomas Hodge McGavack, associate chief of staff and chief of intermediate service, Veterans Administration Center, Martinsburg, W. Va. "Recent Trends in Neuropsychiatry" was covered by Dr. Beverley T. Mead, assistant professor, Department of Psychiatry, University of Kentucky School of Medicine, Lexington, Ky.

Dr. Robert Q. Marston, director and dean of the University of Mississippi School of Medicine, was luncheon speaker. He talked on "Recent Trends in Medical Education."

Dr. Guy T. Vise is president of the Mississippi Academy of General Practice. Moderators for the Seminar were Drs. J. Robert Snavely, Paul S. Derian, Floy Jack Moore, and Clarence A. Sutherland.

State Medical Dues Show Upward Trend

Physicians in 34 state medical associations will pay $50 or more dues during 1962. This was the finding of the Washington State Medical Association which has just concluded a survey of state medical dues for the current year. Doctors in Virginia enjoy the distinction of paying the least in the nation, $25 annually, and the spectrum hits the top with Nevada physicians who pay a whopping $200 of which $100 is an earmarked assessment for their new office building.

Only 17 state medical associations have levied less than $50 annual dues on themselves with one at $47, two at $45, three at $40, one charging $38, seven pegged at $35, and one each at $33, and $25.

In the over-$50 bracket, 22 states range from $52 to $200 for state dues. States charging $50, including the Mississippi State Medical Association, total 12 with two at $55, three at $60, two charging $65, one bills $70, two at $75, two set $80, one on the odd amount of $83, two at $85, three receive $90, two $100, and one with its assessment at $200.

Many states have assessments in addition to state dues with most such additional amount earmarked for the American Medical Association Education and Research Foundation, or the old AMEF. Five states have their own medical scholarship funds, one has a life insurance assessment, and Minnesota earmarks a small part of its dues for an indigent M.D. fund. At least two states, Missouri and Washington, plan $15 increases for 1963 following dues raises in 11 states last year.

As a general rule, highest dues are charged by state population extremes or the biggest and smallest states: California is $75; Michigan, $80; and Illinois, $80; on the other side of the population

coin, Arizona has $85; North and South Dakota, $100 each; Utah, $85; and New Mexico, $90.

Median dues charged by state medical associations for 1962 in ranges reported is $57.50 per member. True mean amount approaches $65 based on physician population of all states. No amount reported includes AMA dues which are $35 per member over and above state dues.

Project Mercury Physician Speaks at UMC Day

An informal, first-hand report on the medical ramifications of manned space flight was the high point for physicians who attended the third annual University Medical Center Day in Jackson on Feb. 1.

A Project Mercury physician who is one of the original pioneers in space medicine was the guest lecturer. He is Dr. James Henry, chief of the biomedical branch in the National Aeronautic Space Agency's Life Systems Division.

Dr. Henry, barred from talking to the lay press on orders from Washington, demonstrated no reluctance to impart medical man-in-space information to other physicians.

He took his audience outside the earth's atmosphere, riding with Alan Shepard in the "Friendship 7" capsule, and brought them safely back again. On films recorded through television cameras, viewers observed the astronaut from his first deep breath before he climbed onto his contour couch through the last sigh when he crawled out of the cockpit.



Dr. Lee Rogers of Memphis, Dr. Bobby King of Iuka, and Dr. Jim DeRuiter of Mendenhall are welcomed to the UMC Day scientific sessions by Dr. Watts Webb. The third annual homecoming activities were held Feb. 1 at the University of Mississippi School of Medicine. Dr. Webb is associate professor of surgery and chairman of the professional postgraduate education committee, which plans the annual event.

Dr. Henry fielded questions from most of the specialties at either his afternoon or evening talk, concerning the effects of the weightless state on life processes. He showed an early film of the first animal flights into space and commented from the vantage point of one who was there on the "ground" floor.

Astronaut Shepard's pulse beat increased by no more than 10 points, he revealed, conceding a personality factor among astronauts who are all combat conditioned and test pilot veterans.

The conditioned responses of Ham, the chimp who beat man into orbit, were the same in space as on training flights, Dr. Henry asserted. The monkey calmly consumed the goodies which were his reward for proper performance.

The space scientist called the possibilities of a fatal catastrophe on the first manned orbit shot extremely remote. He described the duplications of all safeguards, both manual and mechanical.

Program participants from the Medical Center were Dr. James Ward, professor of anatomy, and pathology resident Dr. Roger Arhelger.

While declaring that he "wouldn't diagnose but would sympathize," Dr. Ward showed slides and x-rays of mutations and deformities among marine animals collected live in the Gulf Coast region.

A collection of the finest photographs of cell structure as revealed through the Medical Center's powerful electron microscope were displayed by Dr. Arhelger, who operates the unit.

Patient presentations occupied a large part of the scientific sessions. Special pediatric walk rounds were conducted by the department chairman, Dr. Blair Batson. On grand rounds, the presiding department chairmen were Dr. J. R. Snavely, medicine; Dr. J. D. Hardy, surgery, and Dr. F. J. Moore, psychiatry. Dr. Joel Brunson presented a clinicopathologic conference.

At the evening dinner Dr. Michael Newton, chairman of obstetrics-gynecology, compared birth processes with the arrival of a new dean and introduced Dr. Robert Q. Marston, UMC director and dean of the School of Medicine. Dr. Henry was presented to the audience by Dr. W. Alton Bryant, vice chancellor.

UMC Day is presented by the postgraduate education committee, chaired by Dr. Watts R. Webb, for graduates of the four-year medical school and former house staffers. It is an annual event supported by an educational grant from Merck Sharp and Dohme.

Center for Emergency Drug Data Opens in Washington

The world's first service center for emergency drug information for the nation's nearly 200,000 doctors was put into operation on Jan. 8. Conceived and operated by physicians, the service, called Mediphone, is a drug information center located in Washington, D. C. It is capable of supplying detailed data instantaneously on any one of the more than 8,000 drugs in use today. Any member physician in the country, faced with an emergency or wanting to know more about a drug he wishes to use, can obtain all the information he needs any time of the day or night by telephone.

Mediphone was founded by Dr. Cortez F. Enloe, Jr., who serves as president. "For the first time," Doctor Enloe said at an opening day press conference, "patients have assurance that their physician will now be better able to meet emergencies resulting from untoward drug effects such as overdosage, incompatibilities with other medications, and emergencies of similar nature. The doctors in the nation who join Mediphone will be up-to-date on their drugs."

On the basis of extensive tests and analysis of inquiries made of the new service over the past 18 months, Dr. Enloe said Mediphone will soon become the nation's primary source of data on drug therapy. "The information that Mediphone stores for doctors," Dr. Enloe stated, "was gathered by a research team of physicians, biochemists, pharmacologists, pharmacists and toxicologists. They studied official compendia, textbooks, manufacturers' data and medical periodical literature covering a 15-year period. This mass of data was then arranged in manageable form with the aid of the most modern data-handling and retrieval techniques and equipment furnished by the Remington-Rand, IBM and Bell Telephone Companies. The data," he said, "will be kept current with the assistance of the Department of Pharmacology of George Washington University Medical School, the College of Pharmacy of Long Island University, a team of medical librarians searching more than 200 medical journals each month and with official reports from the American Medical Association."

According to Dr. Enloe, the new service works this way: When a physician enrolls in Mediphone, the cost of membership is twenty dollars a year, he is assigned a registry number and issued a permanent card bearing that number. Any hour of the day or night when a physician places a call to Mediphone, he states his registration number and the questions to be answered. Within a matter of seconds, the Mediphone responder, always a physician, gives the answer. Within 24 hours after the call is completed, Mediphone mails the member physician a report of his inquiry for his case records. Verbatim transcripts of the call are also available if needed.

"The compilation of data resulting from calls coming into the Mediphone center," Dr. Enloe pointed out, "will be an extremely important by-product of the service. Each call will be analyzed by data-processing equipment for what it reveals about the characteristics of drugs in use, including unusual reactions. Thus, patterns of drug behavior will be available to us, for the first time, which not only will give us a clear picture of therapeutic problems being met in practice today, but also will serve as a kind of 'early warning system' for the unexpected effects some drugs may be found to exert."

The group of physicians guiding the new service are among some of the nation's outstanding medical scientists. The Board of Associate Directors includes: Jay M. Arena, M.D., professor of pediatrics, Duke University, originator of the poison control system; Arthur C. DeGraff, M.D., professor of therapeutics, New York University, president of the U. S. Pharmacopoeia; Dale G. Friend, M.D., assistant professor of medicine, Harvard University, leading clinical pharmacologist; Chauncey D. Leake, Ph.D., professor of pharmacology, Ohio State University, chairman, Board of Trustees, American Association for the Advancement of Science; Russel V. Lee, M.D., consultant, Palo Alto Medical Clinic, nationally-known authority on internal medicine; Malcolm E. Phelps, M.D., past president, American Academy of General Practice; Albert H. Schwichtenberg, M.D., director, Department of Aerospace Medicine, Lovelace Foundation, leading authority on processing of medical data and medical advisor to "Project Mercury"; William H. Sebrell, Jr., M.D., R. R. Williams Professor of Nutrition, Columbia University, former director of National Institutes of Health; Frank E. Wilson, M.D., executive vice president, Joint Blood Council, Inc., former director of the Washington office of the American Medical Association; Frank M. Woolsey, Jr., M.D., professor of postgraduate medicine, Albany Medical College, one of the nation's foremost authorities on postgraduate medical education; Arthur G. Zupko, Ph.D., dean, Brooklyn College of Pharmacy; and James L. Goddard,

M.D., Washington, D. C., one of the developers of the national Poison Control Center. Richard L. Meiling, M.D., dean, College of Medicine, Ohio State University and former assistant secretary of defense for health and medical affairs of the U. S. Department of Defense, is a consultant to the service.

Cumulated Index Medicus Now Available from AMA

The American Medical Association has announced the publication of Volume II of the *Cumulated Index Medicus*. This is an annual compilation of the medical literature indexed in the monthly issues of *Index Medicus,* published by the National Library of Medicine.

Available in March, 1962, Volume II lists approximately 135,000 articles and contains 4,500 pages. It consists of three parts. Part I is an index of authors and list of medical journals covered; Parts II and III list the medical literature by subject. All three parts are available only as one unit and cannot be purchased separately.

Purchase of this volume provides one convenient source for finding medical literature, either by author or subject. It is a valuable reference for locating pertinent articles for medical research.



Copyright, Mississippi State Medical Association

"Why should I be sick? I'm full of medically tested ingredients."

Copies for delivery in the United States, U. S. Possessions, and Canada are $35.00 per volume; for delivery to all other countries, $40.00. Orders should be sent to the American Medical Association, Circulation and Records Department, 535 N. Dearborn Street, Chicago 10, Illinois.

State Physicians Invited To Attend Augusta Assembly

The Richmond County Medical Society, Augusta, Ga., will sponsor the Augusta Postgraduate Medical Assembly on April 2, 3, and 4. All interested Mississippi physicians are invited to attend, according to Dr. J. T. Rucker, Jr., publicity chairman.

The program will include 22 speakers in the four scientific sections on internal medicine, surgery, psychiatry, and pediatrics. The majority of the speakers will be from the staff of the Medical College of Georgia.

Out-of-state speakers for the Assembly will include Dr. Max Michael, executive director, Jacksonville Hospital's Educational Program, Inc., Jacksonville, Fla.; Dr. Robert Coffey, professor and chairman of the Department of Surgery, Georgetown University School of Medicine, Washington, D. C.; Dr. Waldo Nelson, professor of pediatrics, Temple University Medical School, Philadelphia, Pa.; Dr. Cary M. Dougharty, Department of Obstetrics and Gynecology, Louisiana State University, Baton Rouge, La.; Dr. William F. Sheeley, Washington, D. C., chief, APA-GP Education Project, and Dr. J. Kenneth McDonald, Mental Hygiene Clinic, Fort Jackson, S. C.

Further information may be secured from Dr. J. T. Rucker, Jr., c/o Anesthesia Associates of Augusta, University Hospital, Augusta, Ga.

Nineteen Complete Family Health Course at Ole Miss

Nineteen home economics majors at the University of Mississippi have completed a family health course that is unique in the state of Mississippi.

For six weeks the group learned applied home nursing and all of the essentials to home care of the sick and injured. Serving as consultant and conducting weekly demonstrations was Mrs. Edna Roberts of Sardis, field advisory nurse of the Mississippi State Board of Health.

The Ole Miss course combines two teacher certification requirements into a single course, ac-

cording to Dr. Blanche Tansil, head of the Department of Home Economics. These are personal hygiene and home nursing.

Each of the University students qualified for the American Red Cross Home Nursing Certificate. They learned signs of illness, control of contagious diseases, techniques of patient care in the home, principles of safety, and simple treatment of patients under doctor's orders.

Teaching the course was Mrs. Jeanette Phillips, a member of the home economics faculty.

January Influenza Cases Double 1961 Incidence

Influenza cases reported in the state during January more than doubled the number of cases reported for the entire year of 1961, according to the State Board of Health. The Board's weekly morbidity report dated Jan. 26 showed 2,492 influenza cases with the majority occurring in seven counties. The 1961 total was 1,113.

The following table shows morbidity occurrence through the fourth week of 1962, ending Jan. 26. Case totals reported are shown opposite the disease condition.

Tuberculosis, pul.	44
Tuberculosis, O.F.	4
Dysentery, bacillary	1
Septicemia, Strep.	3
Staphylococcus infection	2
Meningococcus infection, meningitis	3
Meningitis, O.F.	1
Tetanus	2
Mononucleosis, infectious	5
Diarrhea of newborn	2
Hepatitis, infectious	104
Helminthic infections	
Hookworm	32
Ascariasis	17
Streptococcus infection	
Scarlet fever	22
Strep throat	333
Pertussis	2
Measles	488
Chickenpox	115
Mumps	28
Influenza	2,492
Gonorrhea	373
Syphilis	
Early	6
Late	26

Drs. Long and Lotterhos Address Auxiliary Meeting

Dr. Lawrence W. Long, MSMA president, and Dr. William E. Lotterhos, chairman of MSMA's Council on Legislation, were guest speakers for the Woman's Auxiliary Executive Board meeting on Jan. 31.

Dr. Long discussed the plans for the 94th Annual Session reporting in detail on the featured Symposium on Space Medicine. He said an effort would be made to give the general public an opportunity to view the Mercury MA-4 spacecraft, which will be on exhibit during the Annual Session.

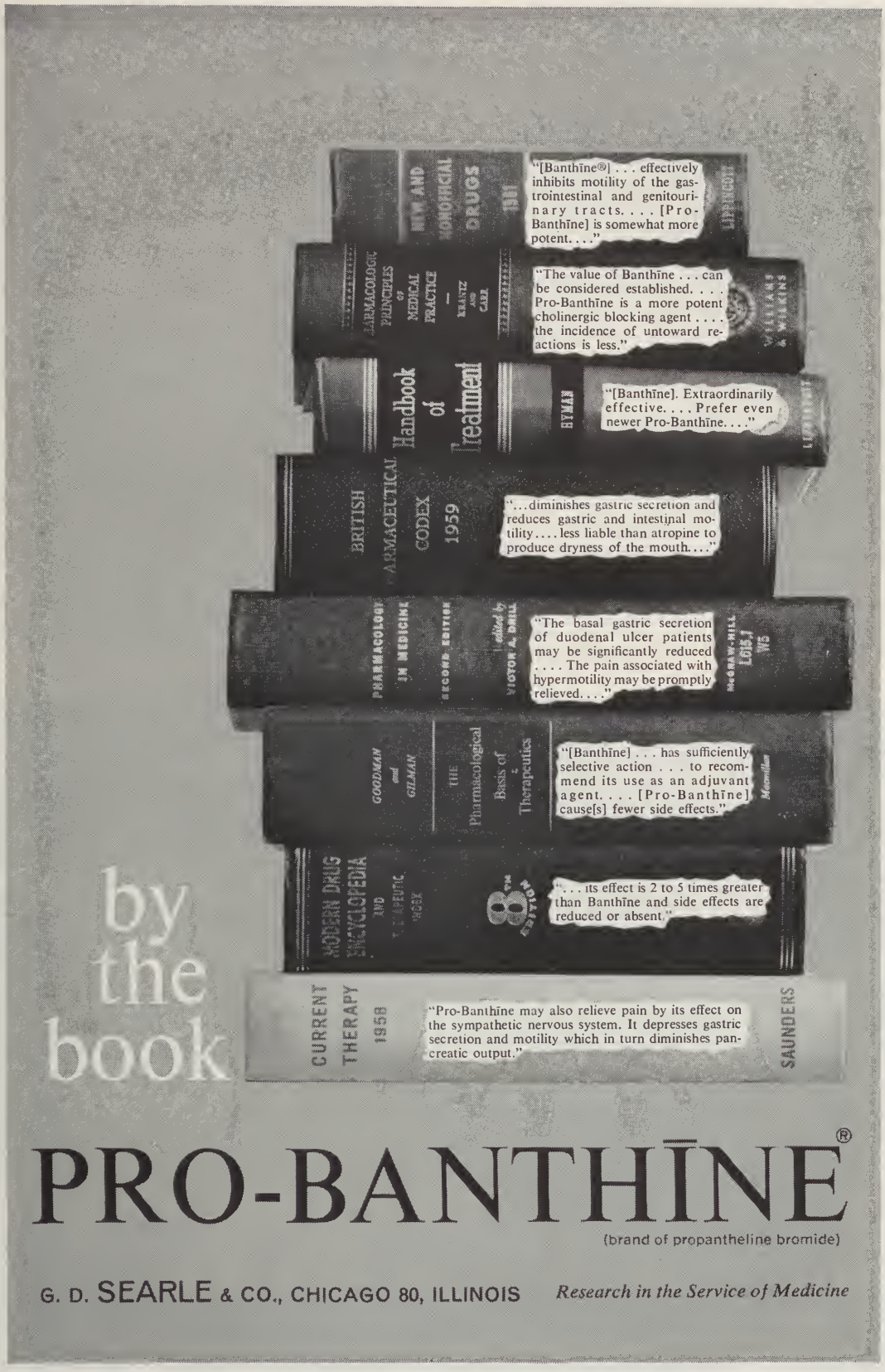
Turning to the local legislative scene, Dr. Long reported on the status of medical legislation now before state legislators.

Dr. Lotterhos spoke on national medical legislation, reporting in particular on a recent AMA legislative meeting. He told the state Auxiliary leaders about the new program WHAM, originated by the Woman's Auxiliary to the AMA. WHAM, Women Help American Medicine, will concentrate its efforts on the local level, Dr. Lotterhos said. He asked that the state group cooperate in this program in all possible ways.

Mrs. John G. Egger, Auxiliary president, presided over the luncheon and preceding Board meeting.



Shown are Mrs. John G. Egger, Woman's Auxiliary president, Mrs. A. T. Tatum, Auxiliary president-elect, Dr. Lawrence W. Long, MSMA president, and Dr. William E. Lotterhos, chairman of MSMA's Council on Legislation. Drs. Long and Lotterhos addressed the Auxiliary's Executive Board Meeting on Jan. 31.


"[Banthīne®] . . . effectively inhibits motility of the gastrointestinal and genitourinary tracts. . . . [Pro-Banthīne] is somewhat more potent. . . ."
"The value of Banthīne . . . can be considered established. . . . Pro-Banthīne is a more potent cholinergic blocking agent . . . . the incidence of untoward reactions is less."
"[Banthīne]. Extraordinarily effective. . . . Prefer even newer Pro-Banthīne. . . ."
". . . diminishes gastric secretion and reduces gastric and intestinal motility . . . . less liable than atropine to produce dryness of the mouth. . . ."
"The basal gastric secretion of duodenal ulcer patients may be significantly reduced . . . . The pain associated with hypermotility may be promptly relieved. . . ."
"[Banthīne] . . . has sufficiently selective action . . . to recommend its use as an adjuvant agent. . . . [Pro-Banthīne] cause[s] fewer side effects."
". . . its effect is 2 to 5 times greater than Banthīne and side effects are reduced or absent."
"Pro-Banthīne may also relieve pain by its effect on the sympathetic nervous system. It depresses gastric secretion and motility which in turn diminishes pancreatic output."
by the book
PRO-BANTHĪNE®
(brand of propantheline bromide)
G. D. SEARLE & CO., CHICAGO 80, ILLINOIS
Research in the Service of Medicine

TB Association Revises Manual On Diagnostic Standards

The 11th edition of *Diagnostic Standards and Classification of Tuberculosis,* with color illustrations and a number of revisions to bring it into conformity with present-day practice, has been published by the National Tuberculosis Association. This is the first edition since 1955.

Classifications are included for extrapulmonary tuberculosis as well as pulmonary, and sections are devoted to diseases and conditions related to tuberculosis, to basic anatomic, pathologic, and physiologic concepts, to the clinical course of tuberculosis, and to diagnostic methods, including roentgenography. A special section on bacteriology describes not only the various strains of *Mycobacterium tuberculosis* but also the unclassified mycobacteria which sometimes cause disease resembling tuberculosis.

A new feature which is expected to be of great practical value to doctors and medical records librarians is the inclusion of coding systems used in classifying both pulmonary and extrapulmonary tuberculosis.

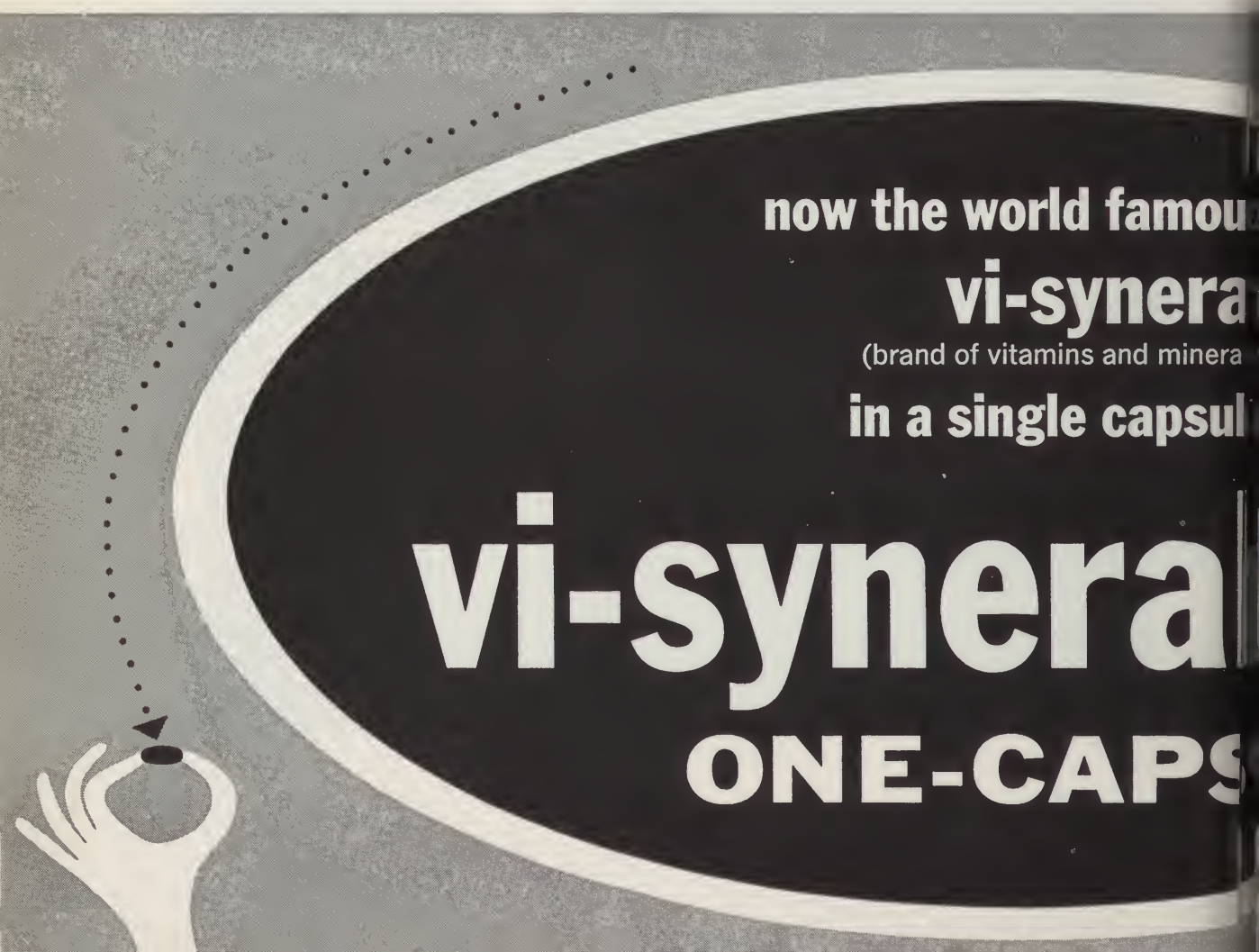
Diagnostic Standards is used throughout the world in establishing and reporting the diagnosis and stages of tuberculosis. It is widely used also in medical schools and in hospitals for teaching purposes and is often referred to as the standard classification for legal and actuarial purposes throughout the country. Approximately 300,000 copies of the last edition were distributed.

The 1961 edition was prepared by a committee of the American Thoracic Society, medical section of the NTA, headed by Dr. William H. Oatway, Jr., of Altadena, Calif.

Film on Stroke Diagnosis Issued by Heart Association

A new professional film on strokes, which stresses the need for accurate differential diagnosis because of therapeutic advances in the field, has been produced by the American Heart Association and its affiliates.

Entitled "Cerebral Vascular Diseases: The Challenge of Diagnosis," it presents three case histories involving cerebral thrombosis, hemorrhage and embolus, and depicts methods for proper diagnosis in each case.



1961 Was Mild Flu Year Reports National Index

Data released by the National Disease and Therapeutic Index indicates that 1961 may turn out to be an unusually mild influenza year. Influenza visits through the third quarter of the year ran below the 1959 and the 1960 level.

Originated in 1956, the NDTI is a research project designed to provide a continuous flow of reliable basic facts on private medical practice in the United States. Twelve-hundred physicians report on all private patient contacts occurring during a 48-hour period, once each quarter of the year. Panel members represent all geographic areas and specialties and care is taken to insure proper coverage throughout 365 days of the year.

Recent reports indicating the possibility of an influenza epidemic during the 1961-62 winter season have prompted many people to seek inoculations, according to NDTI data.

The NDTI service plans to continue monthly reports throughout the 1961-62 winter season in order to provide a continuous check on influenza visits in the United States.

Pearl River Society Is 100% In AMEF Contributions

The Pearl River County Medical Society was 100 per cent in contributions to the 1961-62 AMEF campaign, according to Dr. Samuel O. Massey, Picayune.

Overall contributions in the state to the American Medical Education Foundation totaled $979.49 in the period from Feb. 1 to Sept. 30, 1961. Auxiliary contributions brought this total to $1,481.39.

As of Jan. 1, the American Medical Education Foundation was merged with the American Medical Research Foundation to form the new American Medical Association Education and Research Foundation. A five-prong program has been established for the AMA-ERF to encompass the aims of the two former foundations. It includes unrestricted financial assistance to medical schools, a medical journalism fellowship program, a research grants program, a study of perinatal mortality and morbidity, and a study of continuing medical education.



TO HELP KEEP RECOMMENDATION OF DIETARY SUPPLEMENTS WHERE IT BELONGS, WITH THE PHYSICIAN

VI-SYNERAL ONE-CAPS offers a high quality product at an especially low price.

• one capsule-a-day dosage • costs your patient less than 3¢ per day

• small, easy to take • ethically promoted, sold through the pharmacy

Each VI-SYNERAL ONE-CAPS capsule provides:

VITAMIN A	6,000 U.S.P. Units	DICALCIUM PHOSPHATE	170 mg.
VITAMIN D	600 U.S.P. Units	(Calcium 50 mg.)	
ASCORBIC ACID (C)	75 mg.	(Phosphorus 39 mg.)	
THIAMINE MONONITRATE (B_1)	3 mg.	FERROUS SULFATE EXSICCATED	50 mg.
RIBOFLAVIN (B_2)	3 mg.	(Iron 15 mg.)	
PYRIDOXINE HCl (B_6)	1 mg.	COPPER	1 mg.
NIACINAMIDE	20 mg.	IODINE	0.1 mg.
VITAMIN B_{12}	3 mcg.	MANGANESE	1 mg.
d, CALCIUM PANTOTHENATE	5 mg.	MAGNESIUM	1 mg.
VITAMIN E (d, alpha tocopheryl acetate)	1 Int. Unit	ZINC	1 mg.

Bottles of 28 and 100 capsules.

u. s. vitamin & pharmaceutical corporation

Arlington-Funk Laboratories, division • New York 17, N. Y.





Out-Patient Clinic and Offices

HILL CREST SANITARIUM

Established in 1925

FOR NERVOUS AND MENTAL DISEASES
AND ADDICTION PROBLEMS

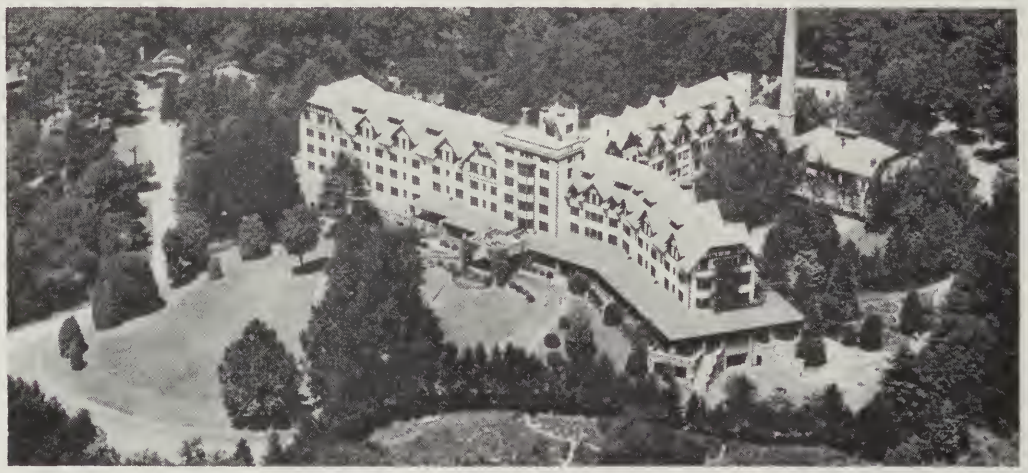
James A. Becton, M.D. — James Keen Ward, M.D.

P. O. Box 2896, Woodlawn Station, Birmingham 6, Ala. — Phone 595-1151 and 595-1152

APPALACHIAN HALL

ESTABLISHED — 1916

ASHEVILLE — NORTH CAROLINA



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.

Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.

Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

Wm. Ray Griffin, Jr., M.D. — Mark A. Griffin, Sr., M.D.

Robert A. Griffin, M.D. — Mark A. Griffin, Jr., M.D.

For rates and further information, write: APPALACHIAN HALL, ASHEVILLE, N. C.



If you had to make your own children's multivitamins

...iances are you'd try to make them very much like our new Vi-Daylin® Chewable with Entrapped Flavor. Entrapped Flavor means a better tasting chewable children's multivitamin; one with no vitamin aftertaste. Here's wh 1. We coat all the vitamins in a digestible film that does not dissolve until it reaches the gastrointestinal tract. Th means that unpleasant strong vitamin tastes are not released in the mouth, but in the g-i tract where they ...most quickly absorbed. 2. We make certain that every Vi-Daylin Chewable tablet tastes citrus sweet an good to every patient, everytime; we coat the flavoring oils in each tablet in a water soluble film. This ...dissolves immediately in the mouth, releasing the full bouquet of our citrus-candy flavoring agents. Now yo know why little patients always taste the flavor, never the vitamins, when you prescribe ne Vi-Daylin Chewable. And the formula's all you'd expect, with reasonable amounts of A & D. ...e test them yourself and you'll prescribe **VI-DAYLIN CHEWABLE** regularly and soon.

ABBOTT

...in-Vitamins A, D, B_1, B_6, B_4, B_{12}, C, and Nicotinamide, Abbott.

Profile of a multivitamin



New Vi-Daylin Chewable —with entrapped flavor

New Formula

In recognition of recent medical thinking, we've reduced the vitamin D in our formula from 20 mcg. (800 units) to 10 mcg. (400 units). At the same time, we've increased the vitamin C content from 40 mg. to 50 mg. per tablet and per 5-cc. lemon-candy teaspoonful.

All Other Elements Remain at Their Previous Level.

Vitamin A (3000 units)	0.9 mg.
Thiamine Mononitrate	1.5 mg.
Riboflavin	1.2 mg.
Cobalamin (B_{12})	3 mcg.
Nicotinamide	10 mg.
Pyridoxine Hydrochloride	1 mg.

New Low Price

In quantities of 100 tablets our new Chewable costs less than 4¢ a tablet and the normal dosage is one tablet daily. No financial hardship for your patients when you prescribe or recommend Vi-Daylin.

New Shape, New Color, New Bottle

New Vi-Daylin Chewable tablets are football shaped. This shape got a high degree of acceptance in our taste-tests and seems to have an intrinsic interest for children. The orange color ties in with the mild, sweet citrus flavor. And the wide-mouthed new bottle looks handsome on the table.

Taste-Test New Vi-Daylin Chewable Yourself

Won't you taste-test new Vi-Daylin Chewable multivitamins yourself? We're certain you'll be pleasantly surprised at their sweet good taste. They're the candy-flavored multivitamins with *entrapped flavor* . . . little folks taste the candy flavor, never the vitamins.

ABBOTT

Vi-Daylin—Vitamins A, D, B_1, B_2, B_6, B_{12}, C, and Nicotinamide, Abbott

In intestinal "grippe"

prompt 4 way check of diarrhea

- Curbs excessive peristalsis
- Adsorbs toxins and gases
- Soothes inflamed mucosa
- Provides intestinal antisepsis



POMALIN

TRADEMARK

Liquid

EFFECTIVE ANTIDIARRHEAL

FORMULA: *Each 15 cc. (tablespoon) contains:*

Sulfaguanidine U.S.P. .... 2 Gm.
Pectin N.F. ..... 225 mg.
Kaolin ..... 3 Gm.
Opium tincture U.S.P. ...0.08 cc.
(equivalent to 2 cc. paregoric)

DOSAGE: **Adults:** Initially 1 or 2 tablespoons from four to six times daily, or 1 or 2 teaspoons after each loose bowel movement; reduce dosage as diarrhea subsides.

Children: ½ teaspoon (=2.5 cc.) per 15 lb. of body weight every four hours day and night until stools are reduced to five daily, then every eight hours for three days.

SUPPLIED: *Bottles of 16 fl. oz. (raspberry flavor, pink color)*
Exempt Narcotic. Available on Prescription Only.

Winthrop LABORATORIES
New York 18, N. Y.

Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.





Today's little "limey" needs a half barrel of orange juice

...or, to be exact, a total of 2,106 ounces in his first two years. And how much he'll need during his first twenty years would have to be measured by the truckload, because the need for the nutrients contained in Florida orange juice continues throughout life.

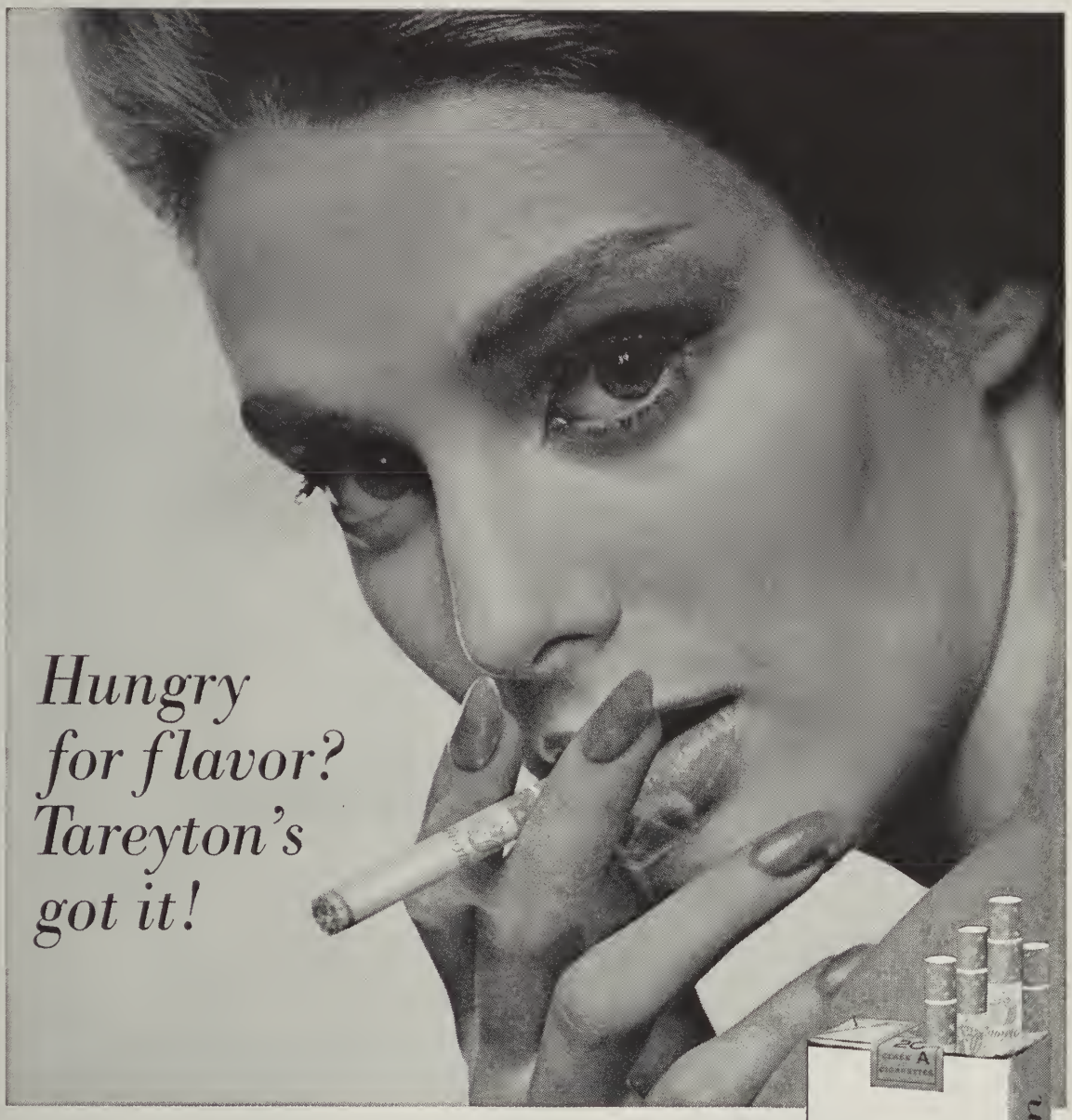
How our little "limey" or any of your other patients obtain the vitamins and nutrients found in citrus fruits is important to them and to you. There are so many wrong ways, so many substitutes and imitations for the real thing.

For a way that combines real nutrition with real pleasure, there's nothing better than the oranges and grapefruit ripened under Florida's own sunshine. Somehow, nothing can surpass the result of the combination of sun, air, temperature, and soil found in Florida.

It's good nutrition to encourage people to drink orange juice. It's even more judicious to encourage them to drink the juices and eat the fruits watched over by the Florida Citrus Commission. These men set the world's highest standards of quality in fresh frozen, canned, or cartoned citrus fruit and juices.

When you suggest to your patient that they have a big glass of orange juic for breakfast, or for a snack, or whe they want to raid the refrigerator, th deliciousness of Florida orange juice wil give you assurance that they'll *want* t carry out your recommendation. You'l be helping them to the finest drink ther is—by the glassful or the barrel.

© Florida Citrus Commission, Lakeland, Florid





Flavor you never thought you'd get from any filter cigarette!

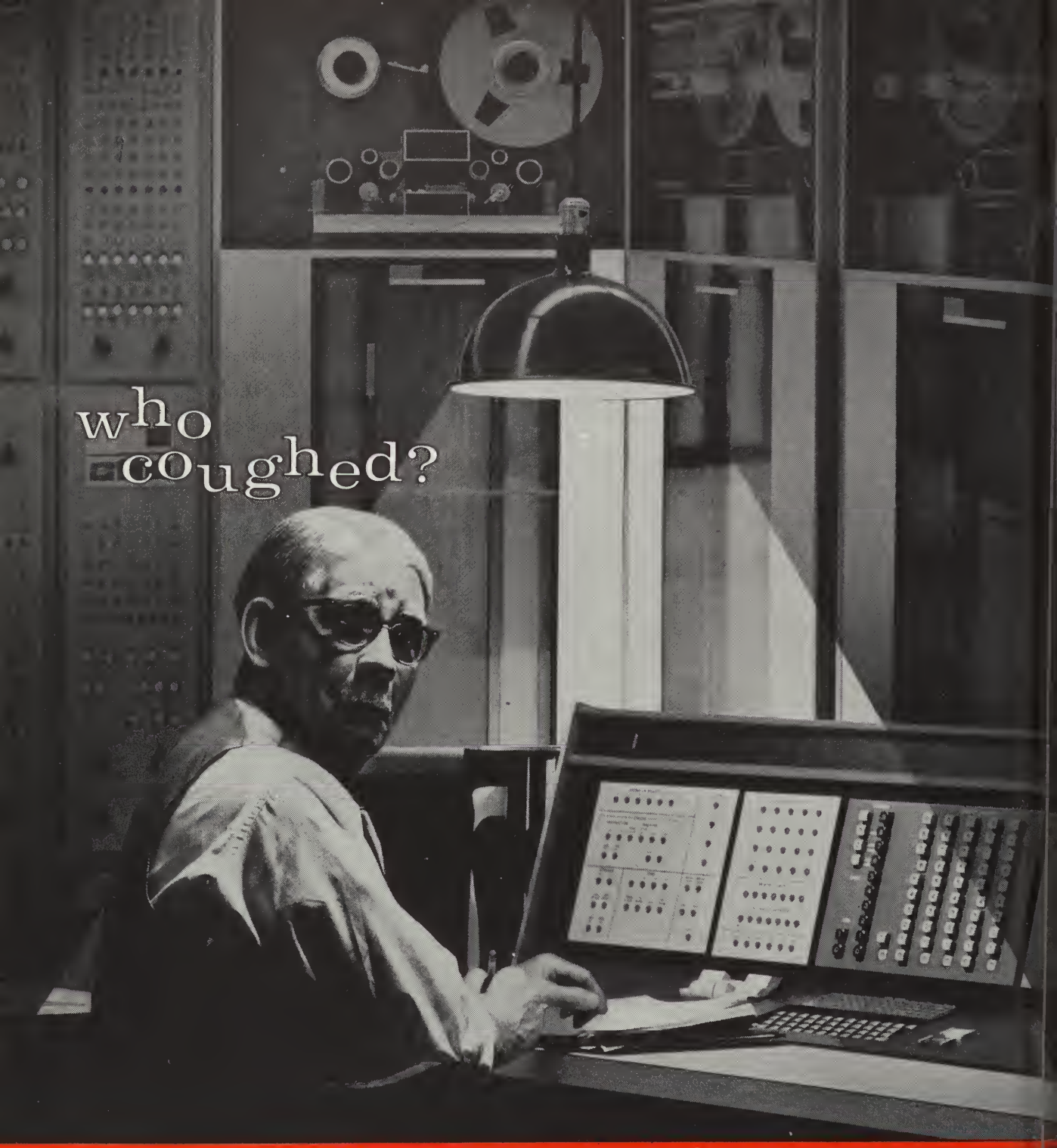
If you're hungry for flavor, Tareyton's got plenty—and it's *plenty good!* Quality tobaccos at their peak go *into* Tareyton! Then the famous Dual Filter *brings out* the best taste of these choice tobaccos. Try a pack of Dual Filter Tareytons—you'll see!

Dual Filter makes the difference



Product of The American Tobacco Company—
"Tobacco is our middle name" ©A T Co.

DUAL FILTER Tareyton



WHENEVER COUGH THERAPY IS INDICATED

HYCOMINE®

Syrup

THE COMPLETE Rx FOR COUGH CONTROL

cough sedative / expectorant
antihistamine / nasal decongestant

■ relieves cough and associated symptoms in 15-20 minutes ■ effective for 6 hours or longer ■ promotes expectoration ■ rarely constipates ■ agreeably cherry-flavored

Each teaspoonful (5 cc.) of HYCOMINE* Syrup contains: Hycodan®

Dihydrocodeinone Bitartrate (Warning: May be habit-forming)	5 mg.	6.5 mg.
Homatropine Methylbromide	1.5 mg.	
Pyrilamine Maleate		12.5 mg.
Phenylephrine Hydrochloride		10 mg.
Ammonium Chloride		60 mg.
Sodium Citrate		85 mg.

Average adult dose: One teaspoonful after meals and at bedtime. May be habit-forming. Federal law allows oral prescription.

Literature on request

Endo©
ENDO LABORATORIES
Richmond Hill 18, New York

*U.S. Pat. 2,630,409

"but why don't you tell my patients...?"

We pharmaceutical manufacturers, over the past several years and in various ways, have been trying to tell the story of the drug industry's role as a member of the American health team, and thus to correct certain unfortunate misconceptions. And all along we have looked upon you of the medical profession, on whose good will we are so dependent, as perhaps our chief audience.

But now we wonder... because so many of you have said to us lately, either orally or in writing, "Why are you telling us this? Our patients are the ones who really need to hear this story."

Thank you for pointing out this need; and for the aid some of you have already given us. We think we can now be of still more help in answering many of the questions your patients are asking:—

A good number of us have Speakers Bureaus. If you will designate the place and time, we will have an industry speaker on hand to address any favorite organization of yours... be it a civic, political, or church group; your local PTA; a social club, or a fraternal order.

You have only to send a letter or post card, giving the particulars, to the Office of Public Information, Pharmaceutical Manufacturers Association, 1411 K Street, N.W., Washington 5, D.C. (or phone, National 8-6435). They will make the necessary arrangements* (or promptly let you know if there's any hitch).

* But please try to give at least three weeks' notice.



Theragran®

SQUIBB VITAMINS FOR THERAPY

For your patients with infections or other illnesse
who need therapeutic vitamin support. Eac
Theragran supplies the essential vitamins in trul
therapeutic amounts:

Vitamin A	25,000 U.S.P. Uni
Vitamin D	1,000 U.S.P. Uni
Thiamine Mononitrate	10 m
Riboflavin	10 m
Niacinamide	100 m
Vitamin C	200 m
Pyridoxine Hydrochloride	5 m
Calcium Pantothenate	20 m
Vitamin B_{12}	5 mc

SQUIBB *Squibb Quality—the Priceless Ingredient*

'Theragran'® is a Squibb trademark

"nutrition...present as a modifying or complicating factor in nearly every illness or disease state"[1]

1. Youmans, J. B.: Am. J. Med. 25:659 (Nov.) 1958

rdiac diseases "Who can say, for example, whether the patient chronically with myocardial failure may not have a poorer myocardium because of a moderate iciency in the vitamin B-complex? Something is known of the relationship of vitamin o the intercellular ground substance and repair of tissues. One may speculate upon effects of a deficiency of this vitamin, short of scurvy, upon the tissues in chronic ease."[2] 2. Kampmeier, R. H.: Am. J. Med. 25:662 (Nov.) 1958.

thritis "It is our practice to prescribe a multiple vitamin preparation to patients h rheumatoid arthritis simply to insure nutritional adequacy . . ."[3]
nandez-Herlihy, L: Lahey Clinic Bull. 11:12 (July-Sept.) 1958.

gestive diseases Symptoms attributable to B-vitamin deficiency are commonly observed in patients on peptic ulcer diets.[4] Daily administration of therapeutic amins to patients with hepatitis and cirrhosis is recommended by the National search Council.[5] 4. Sebrell, W. H.: Am. J. Med. 25:673 (Nov.) 1958. 5. Pollack, H., and Halpern, S. L.: Therapeutic Nutrition. National Academy of Sciences and National Research Council, Washington, D. C., 1952, p. 57.

egenerative diseases "Studies by Wexberg, Jolliffe and others have indited that many of the symptoms attributed in the past to senility or to cerebral arteriosclerosis seem to respond with remarkable speed to the administration of vitamins, rticularly niacin and ascorbic acid. These facts indicate that the vitamin reserve of ng persons is lowered, even to the danger point, more than is the case in the average nerican adult."[6] 6. Overholser, W., and Fong, T.C.C. In Stieglitz, E. J.: Geriatric Medicine, 3rd edition, J. B. Lippincott, Philadelphia, 1954, p. 264.

fectious diseases Infections cause a lowering of ascorbic acid levels in the sma; and the absorption of this vitamin is reduced in diarrheal states.[7] 7. Goldsmith, G A.: erence on Vitamin C. The New York Academy of Sciences, New York City, Oct. 7 and 8, 1960. Reported In: Medical Science 8:772 (Dec.10) 1960.

abetes Diabetics, like all patients on restricted diets, require an extra source vitamins.[8] "Rigidly limiting the bread intake of the diabetic patient automatically minates a large amount of thiamin from the diet. . . .There is some evidence of erference with normal riboflavin utilization during catabolic episodes."[9]
ncan G. G.: Diseases of Metabolism 4th edition W. B. Saunders, Philadelphia, 1959, p. 812. 9. Pollack, H.: Am. J. Med. 25:708 (Nov.) 1958.

R FULL INFORMATION SEE YOUR SQUIBB PRODUCT REFERENCE OR PRODUCT BRIEF.



in arthritis: vitamins <u>are</u> therapy

In dealing with the chronic stress of arthritis the physician often faces the problem of nutritional imbalance. High potency B and C supplementation is needed for rapid replenishment of tissue stores of these water-soluble vitamins. STRESSCAPS meet this need and help support the natural metabolic defenses in the disease. Supplied in decorative "reminder" jars of 30 and 100.

Each capsule contains:	
Vitamin B_1 (Thiamine Mononitrate)	10 r.
Vitamin B_2 (Riboflavin)	10 r.
Niacinamide	100 r.
Vitamin C (Ascorbic Acid)	300 r.
Vitamin B_6 (Pyridoxine HCl)	2 r.
Vitamin B_{12} Crystalline	4 mc.
Calcium Pantothenate	20 r.

Recommended intake: Adults, 1 capsule da, or as directed by physician, for the treatm t of vitamin deficiencies.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

STRESSCAPS®

Stress Formula Vitamins <u>Lederle</u>

For a Smooth Delivery...

DEMEROL

BRAND OF MEPERIDINE HYDROCHLORIDE

THE ANALGESIC OF CHOICE IN OBSTETRIC PRACTICE



Winthrop

Textbook after textbook, article after article and experience in practice after practice consistently have demonstrated the capacity of Demerol to produce satisfactory analgesia without weakening the intensity of uterine contractions. In fact, many observers have reported an apparent shortening of labor, particularly in the primipara.

Because it is well tolerated by both the mother and the newborn child, Demerol is generally considered one of the safest analgesics for use in obstetric practice.

In addition to satisfactory analgesia, a moderate sedative effect is obtained with large doses, and sleep is frequently induced between pains.



COMFORT—*with Safe Control—in Millions of Patients.....*

In 13,000 deliveries reported by 158 physicians, "Demerol was unquestionably the narcotic of choice during labor."

(Questionnaire, The Maternal and Child Welfare Committee, South Dakota State M. A., 1958)[1]

"Demerol is our drug of choice for analgesia during labor."

(Posner, Fielding and Posner, Harlem Hospital, New York City)[2]

Demerol in combination with scopolamine ". . . offers the best means of securing analgesia and amnesia in labor with the least risk to the mother and child. . . . Often one is amazed at the manner in which the cervix melts away under this form of medication."

(Beck and Rosenthal, State University of New York)[3]



DEMEROL®

THE ANALGESIC OF CHOICE IN OBSTETRIC PRACTICE

Winthrop LABORATORIES • New York 18, N.Y.

DEPENDABLE ANALGESIA AND AMNESIA

Demerol with Scopolamine

"When combined with scopolamine, it [Demerol] can produce satisfactory amnesia-analgesia in over 90% of the mothers during labour."

(Hershenson and Reid, Boston Lying-in Hospital and Harvard M. Sch.)[4]

In one of the most commonly used technics, an initial dose of 100 mg. of Demerol and 1/150 grain of scopolamine is given intramuscularly when labor is established. Subsequently, 100 mg. of Demerol are given every four hours and 1/200 grain of scopolamine every three hours. "Within 15 or 20 minutes the pain is relieved and neither the frequency nor the intensity of the uterine contractions are diminished."

(Beck and Rosenthal)[3]

Demerol is "... an analgesic drug which relieves pain about as well as does morphine, and it has in addition an antispasmodic action which makes it a good preparation for use during labor. . . . It may be given alone but its effect is enhanced when it is used in combination with scopolamine, and the resultant amnesic effect is excellent."

(Titus, Pittsburgh)[5]

SIDE EFFECTS AND CONTRAINDICATIONS: Demerol hydrochloride is generally well tolerated and nontoxic in therapeutic doses. Side effects occur more frequently in ambulatory patients (who should therefore be specially cautioned) than in those confined to bed. Dizziness is the most common reaction. Nausea or vomiting occurs less frequently than after administration of morphine. Flushing of the face, sweating and dryness of the mouth are sometimes noted. More severe reactions are characterized by great weakness, syncope, profuse perspiration, marked dizziness, and nausea and vomiting. They usually can be prevented if the patient lies down promptly at the onset of side effects. Tolerance to side effects usually develops quickly if medication is continued in small doses (25 mg.). In contrast to morphine, respiratory depression occurs infrequently. However, in patients with lesions that cause increased intracranial pressure, respiratory depression has been noted; therefore, the drug is considered to be contraindicated in such persons.

When Demerol with Scopolamine is used, idiosyncrasy to scopolamine may be encountered occasionally, producing the paradoxic effect of excitement, restlessness, hallucinations and delirium instead of sedation and amnesia. In addition, edema of the uvula, glottis and lips may be encountered occasionally in extremely hypersensitive patients.

Nalorphine (Nalline®) or levallorphan (Lorfan®) are considered to be specific antidotes against respiratory depression which may result from overdosage or unusual sensitivity to narcotics including Demerol.

1. Ranney, Brooks: *South Dakota J. Med. & Pharm.* 11:479, Dec., 1958.
2. Posner, L. B.; Fielding, W. L., and Posner, A. C.: *Obst. & Gynec.* 2:81, July, 1953.
3. Beck, A. C., and Rosenthal, A. H.: Obstetrical Practice, ed. 7, Baltimore, The Williams & Wilkins Company, 1958, pp. 1029, 1030.
4. Hershenson, B. B., and Reid, D. E.: *Bull. Narcotics* 8:36, July-Sept., 1956.
5. Titus, Paul: The Management of Obstetric Difficulties, ed. 5, St. Louis, C. V. Mosby Co., 1955, p. 617.

PRINTED IN U.S.A. REVISED DECEMBER 1961 (1633M)

DEMEROL Hydrochloride Solutions / *for Parenteral Use:*

50 mg. per ml.: Ampuls of 0.5, 1, 1.5 and 2 ml. (25 to 100 mg.); vials of 10 and 30 ml.; disposable syringes of 1 ml.

75 mg. per ml.: Disposable syringes of 1 ml.

100 mg. per ml.: Ampuls of 1 ml.; vials of 20 ml.; disposable syringes of 1 ml.

pH of Demerol 5% and 10% solutions in ampuls and vials is adjusted between 4.5 and 6.0 with sodium hydroxide or hydrochloric acid. Multiple dose vials of Demerol solution also contain metacresol 0.1 per cent as preservative.

Demerol with Scopolamine (50 mg. of Demerol HCl and 1/300 grain of scopolamine HBr per ml.): Ampuls of 2 ml.; vials of 30 ml. pH is adjusted between 4 and 5 with sodium hydroxide or hydrochloric acid.

DEMEROL Hydrochloride / *for Oral Use:*

Demerol hydrochloride tablets 50 mg.

Demerol hydrochloride tablets 100 mg.

Demerol hydrochloride elixir (50 mg. per 5 ml. teaspoon)—Pleasant banana flavor, nonalcoholic. Especially useful for children.

A.P.C. with Demerol tablets—For potentiated action each tablet contains: 200 mg. (3 grains) of aspirin, 150 mg. (2½ grains) of phenacetin, 30 mg. (½ grain) of caffeine, and 30 mg. (½ grain) of Demerol hydrochloride.

Subject to regulations of the Federal Bureau of Narcotics.

THE STANDARD **DEMEROL®**

for Controlled, Safe Analgesia in Obstetrics

ELEVATE THE BLOOD COUNT WHILE YOU IMPROVE APPETITE

SECRAN

LIQUID & CAPSULES *for* BLOOD REGENERATION

Secran provides a combination of hematopoietic vitamin B_{12}* with appetite-stimulant vitamin B_1**, plus roborant vitamin B-complex.

Anemic patients on this therapy show increased red blood cell counts, improved appetite, higher hemoglobin levels, and satisfactory weight gains.

Each average teaspoonful (5 cc.) contains the five following B-Complex vitamins in a palatable vehicle:

Vitamin B_{12} Crystalline . . 25 micrograms
Thiamine Mononitrate (vitamin B_1) . . . . . 10 mg. 10 MDR
Nicotinamide . . . . . 13 mg. ½ MDR
Calcium Pantothenate . . . 2 mg.
Pyridoxine Hydrochloride . 1 mg.

Supplied in bottles of 1 pint or 1 gallon.

DOSE: 2-4 teaspoonfuls daily or as directed by physician.

Each capsule contains:

Vitamin B_{12} Crystals . . . . 25 mcg.
Ferrous Fumarate . . . . . 100 mg.
Dicalcium Phosphate . . . 227 mg.
Ascorbic Acid . . . . . 15 mg.
Pyridoxine Hydrochloride . 1 mg.
Thiamine Hydrochloride . . . 10 mg. 10 MDR
Nicotinamide . . . . . 10 mg. ½ MDR

Supplied in bottles of 100, 500, and 1000 capsules.

DOSE: 3-6 capsules daily, or as directed by physician.

Samples are available to physicians upon request. Please make your request on your prescription sheet or letterhead.

FTP **First Texas *Pharmaceuticals, Inc.***

DALLAS ● SINCE 1901

*NEW AND NONOFFICIAL DRUGS, 1959, p. 644.
**DUNCAN'S DISEASES OF METABOLISM, 4th ed., 1959, page 142.



"Notice any change, Mrs. T.?" *"Well, Doctor... When I realized that I looked forward to teaching... really enjoyed being with the children again... I knew things were better..."* "Ever feel light-headed?" *"No... not at all. I feel perfectly normal now..."*

this could be your "anxiety patient" o

In the treatment of mild to moderate tension and anxiety, the normalizing effect of TREPIDONE leaves the patient emotionally stable, mentally alert. Adult dose: One 400 mg. tablet, four times daily. Supplied: Half-scored tablets, 400 mg., bottle of 50.

TREPIDONE

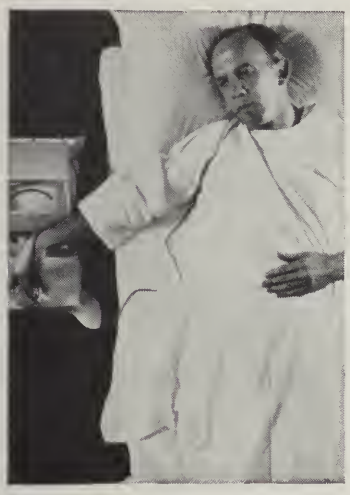
MEPHENOXALONE LEDE

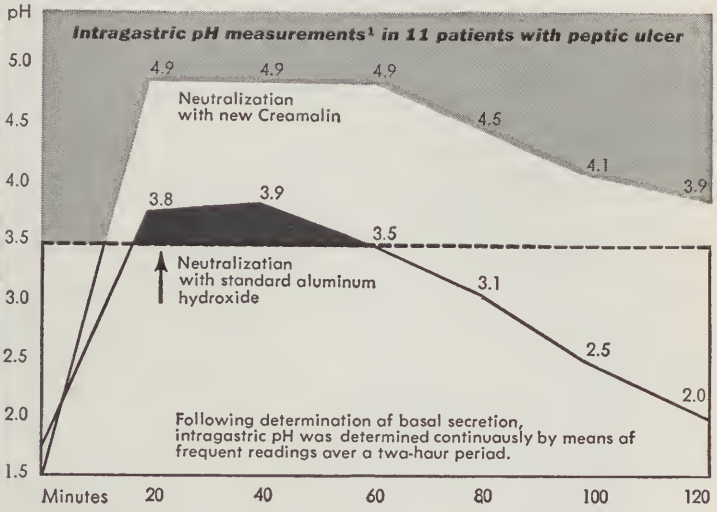
Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Departm

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Acts as well in people as in test tubes

in vivo
neutralizes
40 to 50 per cent
faster—
twice as long at
pH 3.5 or above





New Creamalin®

Antacid Tablets

Buffers fast[1-4] for fast relief of pain—
takes up more acid

Heals ulcer fast—action more prolonged *in vivo*

Has superior action of a liquid, with the convenience of a tablet[5]

Each new Creamalin antacid tablet contains 320 mg. of specially processed, highly reactive dried aluminum hydroxide gel (stabilized with hexitol) with 75 mg. of magnesium hydroxide. New Creamalin tablets are pleasant tasting and smooth, not gritty. They do not cause constipation or electrolyte disturbance.

Dosage: Gastric hyperacidity—from 2 to 4 tablets as needed. Peptic ulcer or gastritis—from 2 to 4 tablets every two to four hours.

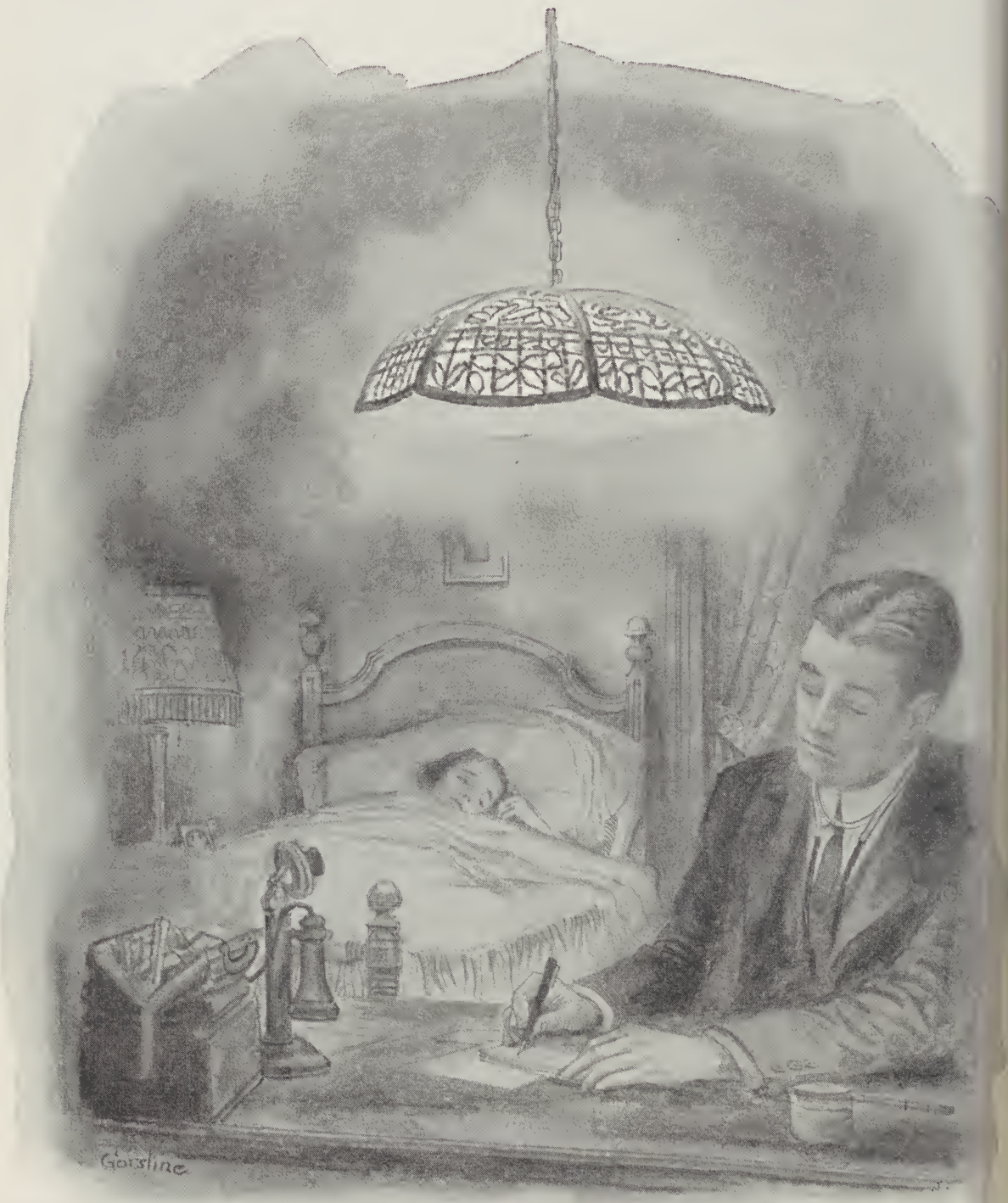
How Supplied: Creamalin Tablets, bottles of 50, 100, 200 and 1000. Also available: New Creamalin Liquid (1 teaspoon=1 tablet), bottles of 8 and 16 fl. oz.

References: **1.** Schwartz, I. R.: *Current Therap. Res.* 3:29, Feb., 1961. **2.** Beekman, S. M.: *J. Am. Pharm. A.* (Scient. Ed.) 49:191, April, 1960. **3.** Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: *J. Am. Pharm. A.* (Scient. Ed.) 48:381, July, 1959. **4.** Data in the files of the Department of Medical Research, Winthrop Laboratories. **5.** Hinkel, E. T., Jr. ; Fisher, M. P., and Tainter, M. L.: *J. Am. Pharm. A.* (Scient. Ed.) 48:384, July, 1959.

Winthrop LABORATORIES
New York 18, N.Y.

FOR PEPTIC ULCER • GASTRITIS • GASTRIC HYPERACIDITY

"The first prescription I ever wrote was for 'Empirin' with Codeine...



and it is still my stand-by for pain relief today."

PICTURE THE YOUNG DOCTOR with his first private patient, about thirty-five years ago. This is the moment, after years of study and guidance in classroom and at hospital bedside, when he assumes the full weight of responsibility for the well-being of his patient. He makes his diagnosis. The patient is in considerable pain, and his first concern is to relieve this discomfort. He writes a prescription for a new analgesic, a convenient drug combination that he believes will be of help. This patient (and many others to follow) finds gratifying relief, and the physician continues to rely upon this medication as the years go by.

Could this have been you in the 1920's? That was when 'Empirin' Compound with Codeine first came into general use (although plain 'Empirin' Compound has been well-known since the influenza epidemic of 1918). Satisfaction through the years has prompted doctors everywhere to depend on 'Empirin' with Codeine for relief of most all degrees of pain. For with this well-tolerated, reliable analgesic combination you can be sure of results, and feel secure in the fact that the liability of addiction is negligible.

Please accept our thanks for continuing to place your trust in a product that has been used more widely in medicine each year for the past four decades.

'EMPIRIN' COMPOUND with CODEINE PHOSPHATE*

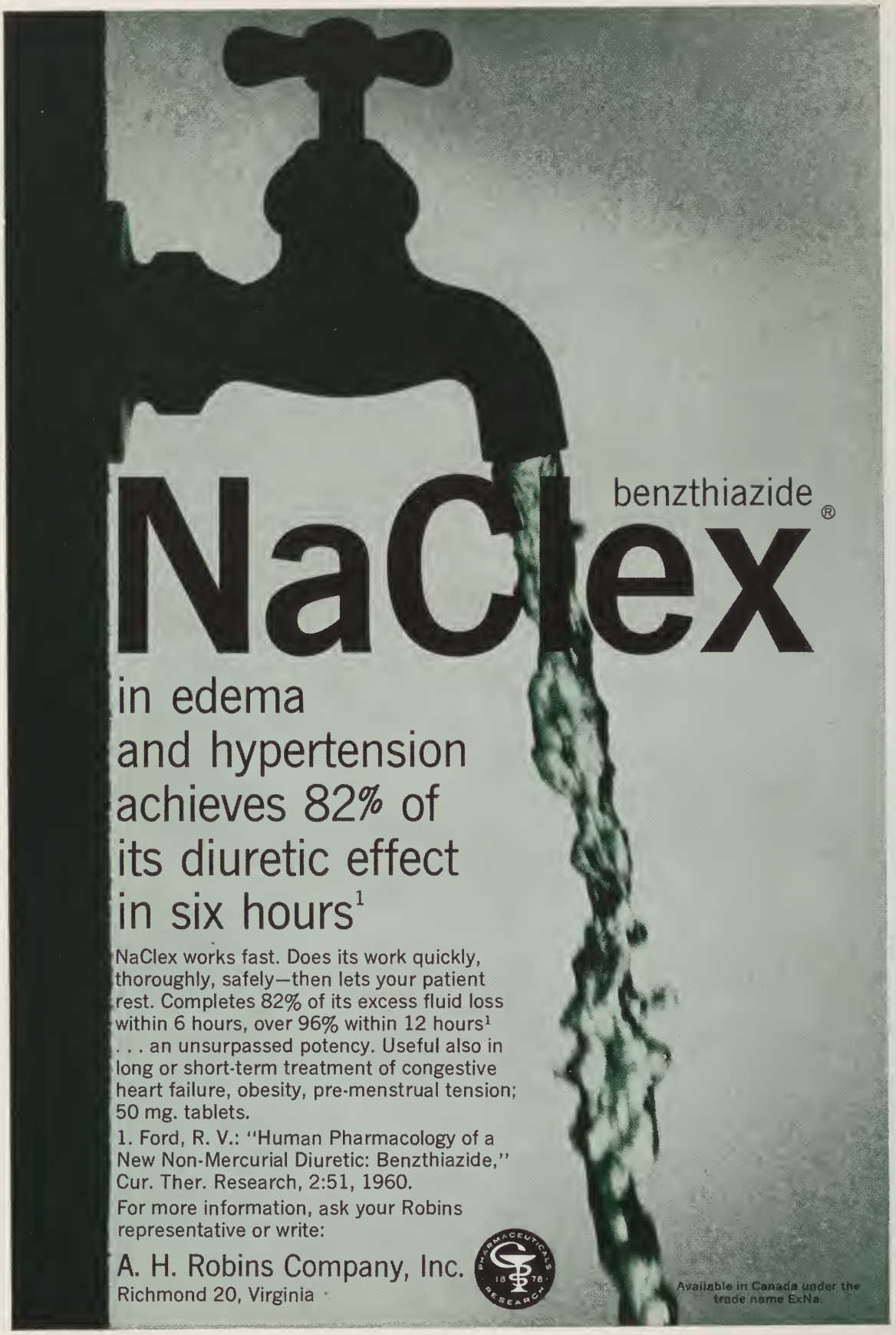
Acetophenetidin, gr. 2½
Acetylsalicylic Acid, gr. 3½
Caffeine, gr. ½

Remember there are now four strengths available...

**Warning—May be habit-forming.*
Subject to Federal Narcotic Regulations.

No. 1 – gr. ⅛
No. 2 – gr. ¼
No. 3 – gr. ½
No. 4 – gr. 1

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N. Y.


benzthiazide®
NaClex
in edema
and hypertension
achieves 82% of
its diuretic effect
in six hours[1]
NaClex works fast. Does its work quickly, thoroughly, safely—then lets your patient rest. Completes 82% of its excess fluid loss within 6 hours, over 96% within 12 hours[1] . . . an unsurpassed potency. Useful also in long or short-term treatment of congestive heart failure, obesity, pre-menstrual tension; 50 mg. tablets.
1. Ford, R. V.: "Human Pharmacology of a New Non-Mercurial Diuretic: Benzthiazide," Cur. Ther. Research, 2:51, 1960.
For more information, ask your Robins representative or write:
A. H. Robins Company, Inc.
Richmond 20, Virginia
PHARMACEUTICALS 1878 RESEARCH
Available in Canada under the trade name ExNa.

INDEX TO ADVERTISERS

In accepting advertising for publication, the JOURNAL has exercised reasonable precaution to insure that only reputable, factual advertisements are included. Nevertheless, claims made by advertisers in behalf of goods, services, and medicinal preparations, apparatus or physical appliances are understood to be those of the advertiser. Neither sanction nor endorsement of such is warranted, stated, or implied by the association.

	Adv. page
Abars Pharmaceuticals	center
Abbott Laboratories	inserts
Ames Company	47
Amid Laboratories	19
American Tobacco Company	33
Appalachian Hall	30
Blue Cross	before center
Burroughs Wellcome	22, 42, 43
Ciba Products	24
Endo Laboratories	34
First Federal of Jackson	7
First Texas Pharmaceuticals	39
Fesler Company	45
Florida Citrus Commission	32
General Electric	10
Glenbrook Laboratories	11
Hill Crest Sanitarium	30
Kay Surgical	18
Lederle	12, 13, 38, 40
Eli Lilly	front cover, 26
P. Lorillard	9
Mission Pharmacal Company	21
Organon, Inc.	after center
Parke, Davis and Company	2, 3
Pharmaceutical Manufacturers	35
Pfizer Laboratories	16, 17, 18, insert
Physicians Casualty	18
A. H. Robins	8, 14, 44
Roche Laboratories	back cover
Schering Corporation	25
G. D. Searle	27
E. R. Squibb	6, 36, 37
U. S. Brewers	23
U. S. Vitamin	28, 29
Upjohn Company	20, 21
Wallace Laboratories	15, 46
Winthrop Laboratories	4, 31, insert, 41



Think Clean!

Detergent, mucolytic, antibacterial, penetrating... qualities that establish Trichotine as a leading vaginal cleanser—both as a therapeutic measure unto itself, and as a cleansing adjunct to therapy.[1-3] A detergent, Trichotine penetrates the rugal folds, removes mucus debris, vaginal discharge, and cervical plugs.[1-4] Surface tension is 33 dynes/cm. (vinegar is 72 dynes/cm.). Trichotine relieves itching and burning—is virtually non-irritating—leaves your patient feeling clean and refreshed. It establishes and maintains a normal, healthy vaginal mucosa in routine vaginal cleansing, as well as in therapy. Whenever you think of a vaginal irrigant, think of the detergent cleansing action of Trichotine.

detergent action

for vaginal irrigation Trichotine®

POWDER

ACTIVE INGREDIENTS: Sodium lauryl sulfate, sodium perborate, sodium borate, thymol, eucalyptol, menthol, methyl salicylate. AVAILABLE: In jars of 5, 12 and 20 oz. powder. REFERENCES: 1. Stepto, R. C., and Guinant, D.: J. Nat. M.A. 53:234, 1961. 2. Karnaky, K. J.: Medical Record and Annals 46:296, 1952. 3. Folsome, C. E.: Personal Communication. 4. MacDonald, E. M., and Tatum, A. L.: J. Immunology 59:301, 1948.

THE FESLER COMPANY, INC., KENILWORTH, NEW JERSEY



Put your low-back patient back on the payroll

Soma relieves stiffness –stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, fast!

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

> Kestler reports in controlled study: *Average time for restoring patients to full activity: with Soma, 11.5 days; without Soma, 41 days.* (*J.A.M.A. Vol. 172, No. 18, April 30, 1960.*)

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. **USUAL DOSAGE: 1 TABLET Q.I.D.**

The muscle relaxant with an independent pain-relieving action

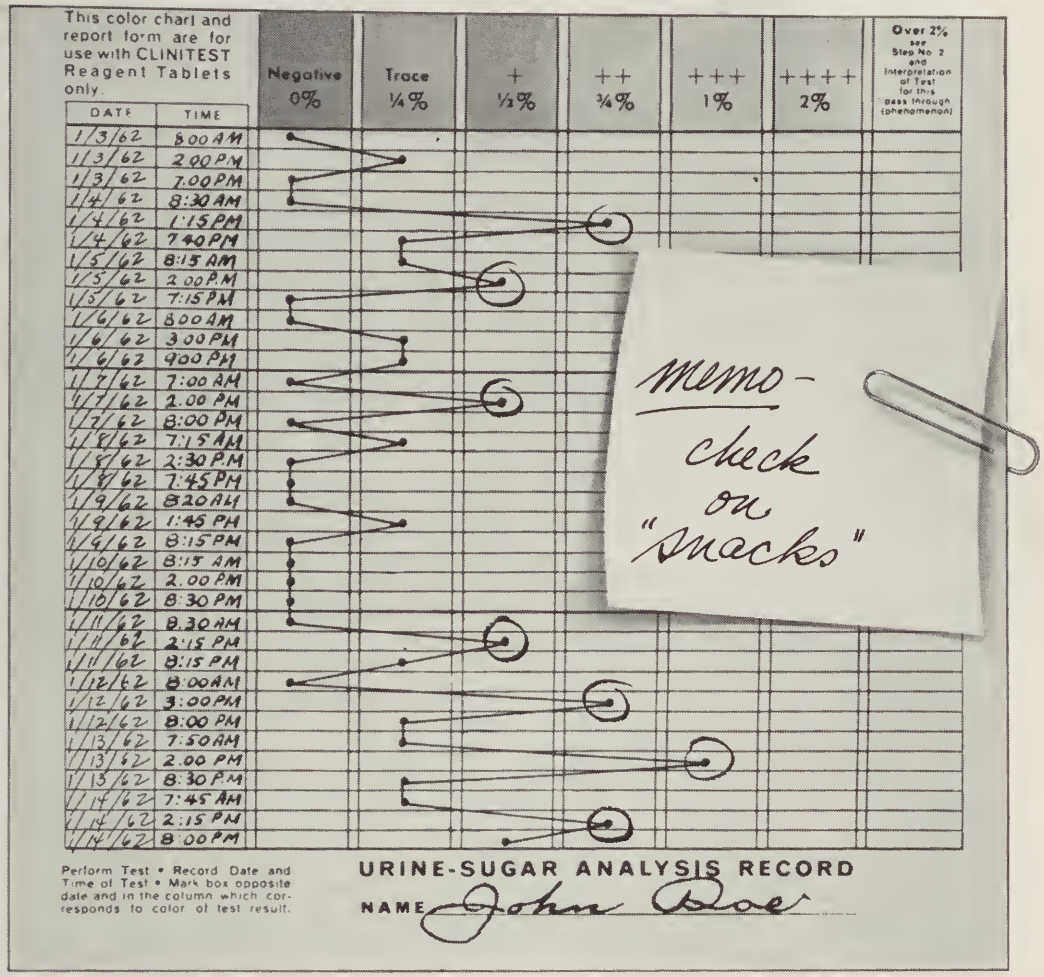
SOMA®

(carisoprodol, Wallace)

Wallace Laboratories, Cranbury, New Jersey

AN AMES CLINIQUICK®

CLINICAL BRIEFS FOR MODERN PRACTICE



in the regulation of diabetes...
GET THE FACTS YOUR PATIENT FORGETS

With graphic ANALYSIS RECORD—"Records of urine tests done at home are essential in the regulation of diabetes." Ricketts, H. T., and Wildberger, H. L.: *Diagnosis and Management of Diabetes Mellitus in General Office Practice,* M. Clin. North America *45*:1505, 1961.

color-calibrated
CLINITEST® BRAND *Reagent Tablets*

quantitative urine-sugar test—for patients whose diabetes is difficult to control, and in therapeutic trial of oral hypoglycemic agents.

Available: CLINITEST *Urine-Sugar Analysis Set* (36 Reagent Tablets)—compact, ready-to-test any time, any place. Set, refills of 36 bottled and 24 Sealed-in-Foil tablets contain *Analysis Record* forms. 19962

AMES
COMPANY, INC
Elkhart • Indiana
Taranta • Canada

LIBRARIAN
NAT LIBRARY OF MED
WASHINGTON 25 D C



How does a pomegranate taste?

It tastes like a pomegranate. No adjective could describe this unique fruit to a person who has never tasted it; none, except perhaps the word "different."

The "Librium Effect" also is different! A patient treated with Librium feels different, even after a few doses. He appears different to his family and to his physician. Different, not only in the sense of a change from the previous state of anxiety and tension. But also different from the effect often created by daytime sedatives or tranquilizers. Of very practical importance, too, is that Librium lacks a depressant effect—a fact which can assume overriding clinical importance.

Librium (like the pomegranate) deserves to be studied at first hand. Why not select twelve patients who show emotional or somatic signs of anxiety and tension, place six of them on Librium—and see the difference for yourself.

Consult literature and dosage information, available on request, before prescribing.

LIBRIUM

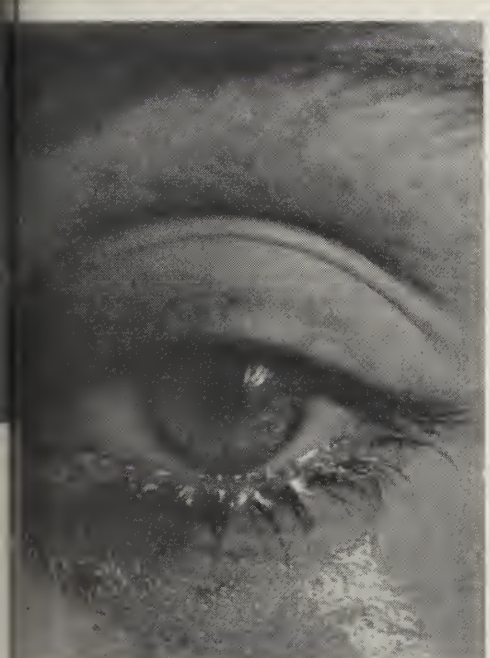
THE SUCCESSOR TO THE TRANQUILIZERS

LIBRIUM® Hydrochloride—
7-chloro-2-methylamino-5-phenyl-3H-1,4-benzodiazepine 4-oxide hydrochloride

ROCHE
LABORATORIES • Division of Hoffmann-La Roche Inc • Nutley 10 • N. J.

JOURNAL OF THE Mississippi STATE MEDICAL ASSOCIATION

APRIL 1962



A CASE FOR HALDRONE®

(paramethasone acetate, Lilly)

APR 10 1962

In acute cases of ALLERGY, Haldrone produces rapid remission of symptoms with little adverse effect on electrolyte metabolism.

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana.

Lilly

240030

Suggested daily dosage in hay fever:
Initial suppressive dose. . 4-8 mg.
Maintenance dose . . . . 2-4 mg.

Supplied in bottles of 30, 100, and 500 tablets:
1 mg., Yellow (scored)
2 mg., Orange (scored)

Special Issue . . . 94th Annual Session

Jackson, Mississippi, May 7-10, 1962

Headquarters: Hotel Heidelberg

M.S.M.A.



because vitamin deficiencies tend to be multiple... give your chronically ill patient the protection of

MYADEC®

high-potency vitamin formula with minerals

It is generally accepted that diseases of long standing and other conditions of physiologic stress may produce a need for additional vitamins. MYADEC is designed to supply that need. Just one capsule a day provides therapeutic potencies of 9 vitamins, plus selected minerals normally present in body tissues. MYADEC is also useful for the *prevention* of vitamin deficiencies in patients whose usual diets are lacking in these important food factors.

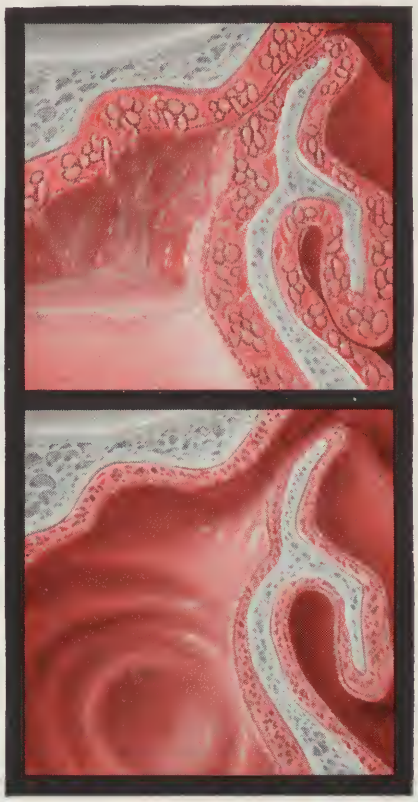
Each MYADEC capsule contains: *Vitamins:* Vitamin B_{12}, crystalline—5 mcg.; Vitamin B_2 (riboflavin)—10 mg.; Vitamin B_6 (pyridoxine hydrochloride)—2 mg.; Vitamin B_1 mononitrate—10 mg.; Nicotinamide (niacinamide)—100 mg.; Vitamin C (ascorbic acid)—150 mg.; Vitamin A—(7.5 mg.) 25,000 units; Vitamin D—(25 mcg.) 1,000 units; Vitamin E (*d*-alpha-tocopheryl acetate concentrate)—5 I.U. *Minerals* (as inorganic salts): Iodine—0.15 mg.; Manganese—1 mg.; Cobalt—0.1 mg.; Potassium—5 mg.; Molybdenum—0.2 mg.; Iron—15 mg.; Copper—1 mg.; Zinc—1.5 mg.; Magnesium—6 mg.; Calcium—105 mg.; Phosphorus—80 mg. Bottles of 30, 100, and 250.

83562

PARKE-DAVIS

PARKE, DAVIS & COMPANY, Detroit 32, Michigan

In colds and sinusitis unsurpassed in providing drainage space without chemical harm



The clogged sinus
In sinusitis, the mucous membrane becomes hyperemic and edematous, lymph glands and goblet cells hyperactive. Ostium is closed by edema and secretions cannot drain freely.

The normal sinus
Magnified anatomy of a portion of maxillary sinus showing mucous membrane with cilia and lymph glands. Ostium is normal and patent.

NEO-SYNEPHRINE®

brand of phenylephrine hydrochloride

hydrochloride

NASAL SPRAYS AND SOLUTIONS

When there is nasal turgescence, tiny orifices of sinus ostia tend to clog. Neo-Synephrine nasal solutions and sprays reduce edematous tissues on contact to provide prompt relief. As turbinates shrink, obstructed sinus ostia open, drainage and breathing become freer and the boggy feeling of a cold disappears.

Delicate respiratory tissue and its natural defenses are not harmed by exceptionally bland Neo-Synephrine; systemic effects are nil; it does not sting. For years it has been recommended for prevention and treatment of sinusitis.[1-3] Repeated applications do not lessen effectiveness.

Available in plastic nasal sprays for adults (½%) and children (¼%), in dropper bottles of ⅛, ¼ or 1 per cent.

1. Grant, L. E.: Coryza and nasal sinus infections, **Clin. Med. & Surg.** 42:121, March, 1935. 2. Putney, F. J.: Sinus infection, in Conn, H. F. (Ed.): Current Therapy 1952, Philadelphia, W. B. Saunders Company, 1952, p. 110. 3. Simonton, K. M.: Current treatment of sinusitis, **Journal-Lancet** 79:535, Dec., 1959.

Winthrop LABORATORIES
New York 18, N.Y.

Volume III
Number 4
April 1962



JOURNAL of the Mississippi
STATE MEDICAL ASSOCIATION

• EDITOR
WILLIAM M. DABNEY, M.D.

• ASSOCIATE EDITORS
DEWITT HAMRICK, M.D.
GEORGE H. MARTIN, M.D.

• MANAGING EDITOR
ROWLAND B. KENNEDY

• EDITORIAL ASSISTANT
BETTY M. SADLER

• PUBLICATIONS COMMITTEE
LAWRENCE W. LONG, M.D.
Chairman
B. B. O'MARA, M.D.
WILLIAM E. LOTTERHOS, M.D.
and the Editors

• THE ASSOCIATION
LAWRENCE W. LONG, M.D.
President
C. P. CRENSHAW, M.D.
President-elect
C. G. SUTHERLAND, M.D.
Secretary-Treasurer
B. B. O'MARA, M.D.
Speaker
HOWARD A. NELSON, M.D.
Vice Speaker
ROWLAND B. KENNEDY
Executive Secretary
CHARLES L. MATHEWS
Assistant Executive Secretary

The JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION is owned and published by the Mississippi State Medical Association, founded 1856. Editorial, executive, and business offices, 735 Riverside Drive, Jackson, Mississippi; office of publication, 1201-5 Bluff Street, Fulton, Missouri. Subscription rate, $5 per annum; $1 per copy, as available. Advertising rates furnished on request. Second-class postage paid at the post office at Fulton, Missouri.

CONTENTS

ORIGINAL PAPERS

Current Surgical Technics for the Treatment of Deafness **133** MILES L. LEWIS, JR., M.D.

The Management of Upper Gastrointestinal Tract Hemorrhage **138** N. EDWARD ROSSETT, M.D.

Evaluation and Disposition of Pain Problems Secondary to Cancer **143** FORREST T. TUTOR, M.D., and JULIAN R. YOUMANS, M.D.

SPECIAL FEATURES

CPC XXVII **145** University of Mississippi

MSMA's Testimony on House Bill 344 **151** WILLIAM E. LOTTERHOS, M.D., and LAWRENCE W. LONG, M.D.

94th Annual Session Program **157** Full Details

EDITORIALS

The Practitioner's Helping Hand **187** Medical Education

Never in a Million Years! **188** Exchange with Chinese Reds?

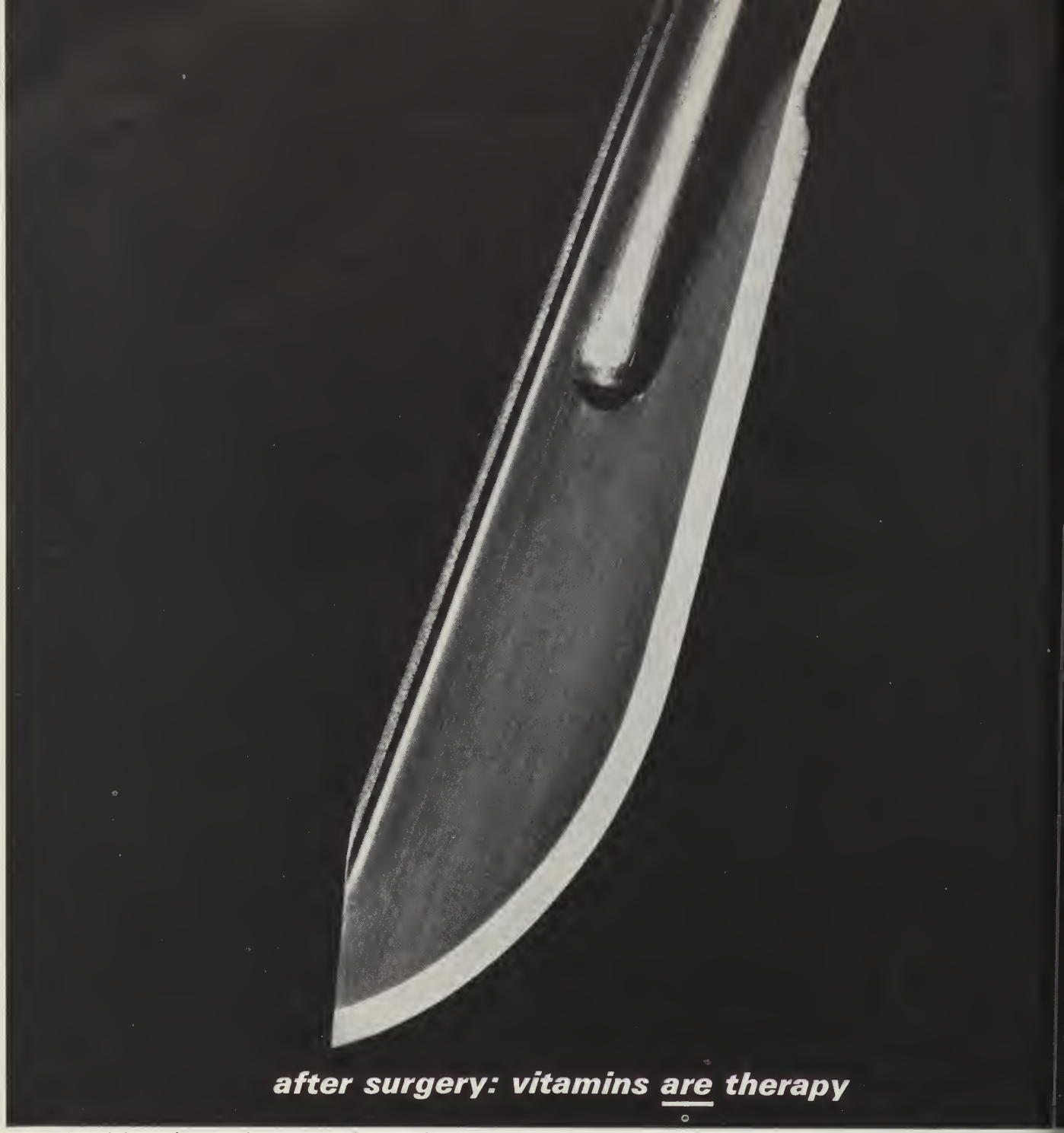
THIS MONTH

The President Speaking **186** 'Nothing Very Good or Very Bad'

The Literature **189** Current Books

Medical Organization **191** Annual Session Previews

Copyright 1962, Mississippi State Medical Association



after surgery: vitamins are therapy

Nutritional supplementation is basic to postoperative care. Therapeutic allowances of B and C vitamins help meet increased metabolic requirements and compensate for stress depletion. STRESSCAPS can set the patient on a more favorable course and contribute to full recovery. Packaged in decorative "reminder" jars of 30 and 100.

Each capsule contains:	
Vitamin B_1 (Thiamine Mononitrate)	10 m
Vitamin B_2 (Riboflavin)	10 m
Niacinamide	100 m
Vitamin C (Ascorbic Acid)	300 m
Vitamin B_6 (Pyridoxine HCl)	2 m
Vitamin B_{12} Crystalline	4 mcg
Calcium Pantothenate	20 m

Recommended intake: Adults, 1 capsule da
or as directed by physician, for the treatm
of vitamin deficiencies.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

STRESSCAPS®

Stress Formula Vitamins Lederle

NEWSLETTER

MISSISSIPPI STATE MEDICAL ASSOCIATION
JACKSON, MISSISSIPPI

April 1962

Dear Doctor:

It was a quiet funeral with few mourners and the epitaph was brief: "House Bill 344, February 14 - March 13, 1962, R.I.P." The House Committee on Public Health and Quarantine killed the measure which sought licensure, legality, and recognition for Mississippi's handful of chiropractors. Since open hearings at which cultists fared badly, bill had been held in subcommittee.

> Capping the climax, chiropractors fell out among themselves with old line cultists opposing "young Turks." Latter incensed legislators with poll of House. H.B. 344 was only measure state medical association has opposed in current session.

Communized medicine in Poland is driving physicians from the country, so a Polish surgeon says. Writing in a communist weekly, Prof. Leon Manteuffel says that poor earnings are the reason and that unless situation improves, "...in 10 years, it will be difficult to find a surgeon, an anesthesiologist, or general practitioner."

Supplies of gamma globulin for indigent patients in New York State may no longer be a problem. In a cooperative venture, the state health department, Red Cross, and private physicians are assuring full availability of expensive substance to needy patients. Red Cross supplies to SBH which issues to private physicians who determine recipients, making no charges for globulin.

A California grand jury indicted a Los Angeles chiropractor for murder in the death of a cancer stricken child. Indictment alleges that chiropractor Marvin Phillips told parents of eight year old Linda Eppings that he could cure her of cancer of eye. Parents took child from hospital on day surgery was scheduled for Phillips to "treat" with iodine drops, vitamins, and adjustments. Linda died five months later.

AMA Council on Medical Education and Hospitals expressed "cautious optimism" on future supply of physicians. Report for 1961 says five new medical schools are in planning stage, medical student enrollments are up, full time faculties are increasing, and recruitment efforts are being intensified.

Sincerely,

Rowland B. Kennedy
Executive Secretary

DATELINE - MEDICAL AMERICA

Twenty-nine Congressmen Find Opposition To King-Anderson

Washington - Administration officials, particularly HEW Secretary Abraham Ribicoff, frequently state that "70 per cent of the people want medical care for the aged under Social Security." Polls conducted among constituents by 29 Congressmen disclosed that 18 districts opposed H.R. 4222. Voters favoring King-Anderson bill were seldom in majorities of as much as 2-to-1 in 11 districts for federal program but majorities of up to 4-to-1 against were noted by 18 House members. Projection of polls to all states show about 6-to-4 against King-Anderson.

Governor Withdraws WCC Member Nomination

Jackson - Governor Ross Barnett formally withdrew from the Senate a nomination for Claude Bruton, Jackson, as labor member of the Workmen's Compensation Commission. Basis for withdrawal was that "Bruton has been criticized as being too liberal in favor of the worker in interpreting workmen's compensation laws." Commission has three members, representing management, labor, and public, each appointed for six year terms.

AMA Supports Federal Aid To Medical Education

Washington - The House Interstate and Foreign Commerce Committee favorably reported H.R. 4999, federal aid to medical education, on split decision after AMA spokesmen testified for federal construction grants to medical schools. Mississippi State Medical Association opposes measure. The $750 million proposal would underwrite projects for medical, dental, nursing, podiatry, pharmacy, optometry, and osteopathy schools as well as scholarships. Observers say most conservative Southerners in Congress will vote "nay."

Soviet 'Thought Control' Extends To Medicine In U.S.S.R.

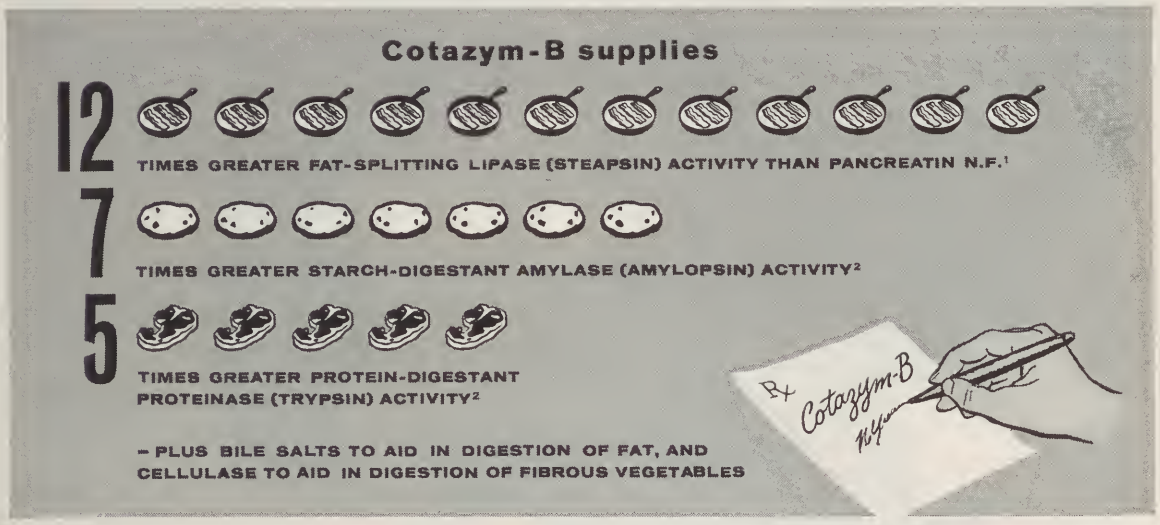
New York - Marxist ideology has strapped Russian medicine with inflexible viewpoints, so Dr. R. Rentchnick writes in What's New. Pushing toward the goal of first place in world science, a 100 member scientific council requires the "approved" viewpoint to be adopted throughout 230 specialized institutes comprising the elite of the Russian medical world. Dr. Rentchnick says Soviet researchers "lack the spontaneity and freedom" of counterparts in U.S.

Pharmaceutical Industry Underwrites Drug Color Study

Washington - The Pharmaceutical Manufacturers Association will conduct a two year private study of the seven basic dye colors used to identify drugs. The $300,000 project will involve nearly 2,000 research animals which will receive more than 100 times normal human exposure to dyes. Although colors now used are certified harmless, new additives law makes retesting desirable.

Digestant needed?

Cotazym-B provides the most potent pancreatic enzyme action available!



COTAZYM-B is a new comprehensive digestant containing bile salts, cellulase and *lipancreatin* for supplementing deficient digestive secretions and helping to restore more normal digestive processes. *Lipancreatin* —"the most potent pancreatic extract available"[3]—is a concentrated pancreatic enzyme preparation developed by Organon.[4] It has been clinically proven to be an effective agent for treating digestive disorders of enzymatic origin.[1,4,5,6,7,8] COTAZYM-B is indicated for the symptomatic relief of dyspeptic or functional digestive disturbances characterized by bloating, belching, flatulence and upper abdominal discomfort.

Dosage: 1 or 2 tablets with water just before each meal.

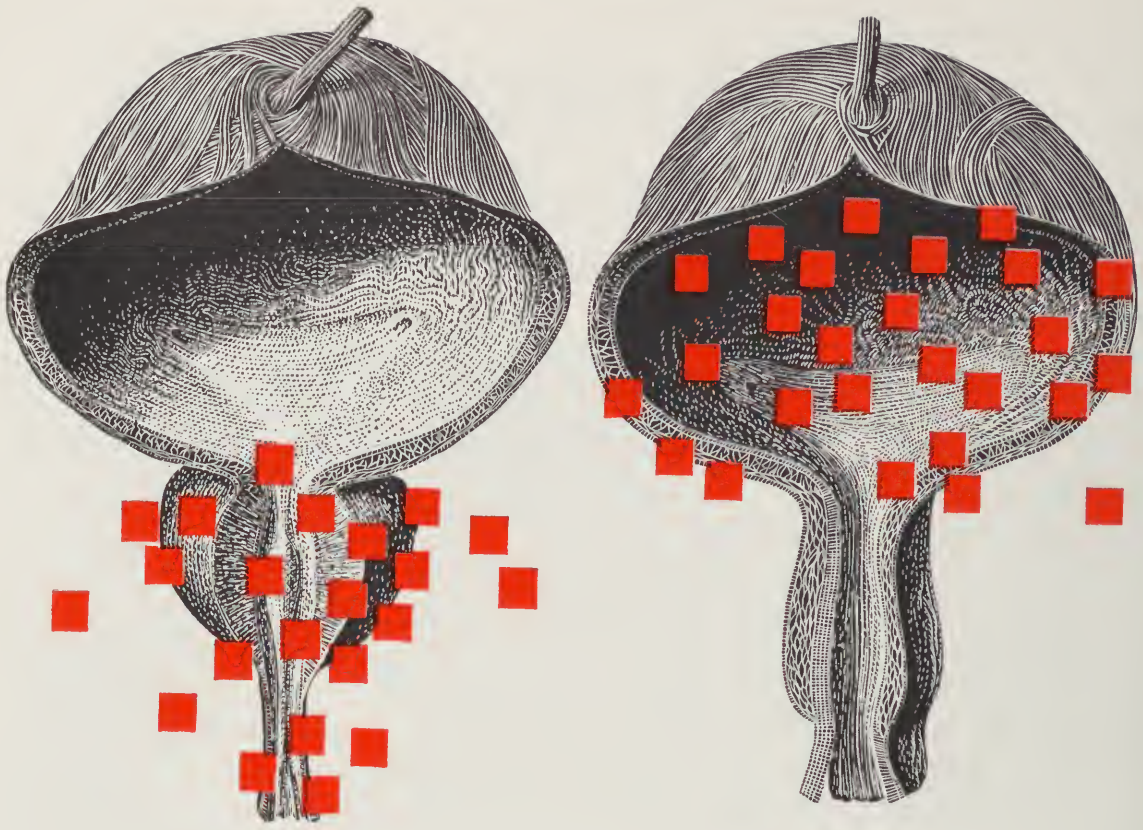
Organon

REFERENCES: 1. Best, E. B., Hightower, N. C., Jr., Willliams, B. H., and Carobasi, R. J.: South. M.J. 53:1091, 1960. 2. Analytical Control Laboratories, Organon Inc. 3. Best, E. B., et al.: Symposium at West Orange, N. J., May 11, 1960. 4. Thompson, K. W., and Price, R. T.: Scientific Exhibit Section, A.M.A., Atlantic City, N. J., June 8-12, 1959. 5. Weinstein, J. J.: Discussion in Keifer, E. D., Am. J. Gastro. 35:353, 1961. 6. Ruffin, J. M., McBee, J. W., and Davis, T. D.: Chicago Medicine, Vol. 64, No. 2, June, 1961. 7. Berkowitz, D., and Silk, R.: Scientific Exhibit Section, A.M.A., New York, June 25-30, 1961. 8. Berkowitz, D., and Glassman, S.: N. Y. St. J. Med. 62:58, 1962.

ORGANON INC., WEST ORANGE, NEW JERSEY

Cotazym®-B

Lipancreatin Bile Salts Cellulase



Serenium

Squibb Ethoxazene (Diamino-Ethoxy-Azobenzene Hydrochloride)

Quickly eliminates pain and burning in the lower urinary tract

At real savings to your patients

Serenium provides **quick, localized analgesic action** in acute and chronic urinary tract infections with **only 1 tablet** t.i.d. Your patient is assured of the prompt action of Serenium by the harmless orange-red color of the urine; and he will feel good about the **low prescription cost,** too.

Supply: Bottles of 50 and 500 chocolate-covered tablets. Each tablet contains 0.1 Gm. of Squibb Ethoxazene. For full information see your Squibb Product Reference or Product Brief.

Serenium® is a Squibb trademark

SQUIBB *Squibb Quality—the Priceless Ingredient*

SQUIBB DIVISION Olin



Relieves Anxiety and Anxious Depression

The outstanding effectiveness and safety with which Miltown relieves anxiety and anxious depression—the type of depression in which either tension or nervousness or insomnia is a prominent symptom — has been clinically authenticated time and again during the past six years. This, undoubtedly, is one reason why physicians still prescribe meprobamate more often than any other tranquilizer in the world.

Miltown®

meprobamate (Wallace)

Usual dosage: One or two 400 mg. tablets t.i.d.
Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50. Also as MEPROTABS® – 400 mg. unmarked, coated tablets; and in sustained-release capsules as MEPROSPAN®-400 and MEPROSPAN®-200 (containing respectively 400 mg. and 200 mg. meprobamate).

WALLACE LABORATORIES / *Cranbury, N. J.*

CM-6709

Clinically proven in over 750 published studies

1. Acts dependably – without causing ataxia or altering sexual function
2. Does not produce Parkinson-like symptoms, liver damage or agranulocytosis
3. Does not muddle the mind or affect normal behavior

Control Constipation Without Interference

PRULET®



A MILD REFLEX ACTING LAXATIVE . . .

does not interfere with other conditions under treatment.

The active ingredient of Prulet,® Bis(p-acetoxyphenyl) -oxindole, is analogous to a substance found in prunes. Completely recoverable from the feces, it has no deleterious effect on the vital organs. It is completely free from side effects, such as coloring of the urine, hyperemia and flatulence. During lactation no portion of the active ingredient of Prulet® appears in the milk and it has no effect on the nursing infant.

PRULET® . . .

provides therapeutic effectiveness with milligram dosage.

EASY TO TAKE: Prulet® tablets are small, odorless, and tasteless.

SUPPLIED: Bottles of 60.

EACH TABLET CONTAINS:
Bis (p-acetoxyphenyl)-oxindole . . . 5 mg

DOSAGE: One or two tablets before retiring until regularity is achieved or as directed by a physician.

PRECAUTIONS: Presence of nausea, vomiting, abdominal pains, or other symptoms of appendicitis.

COMPLETE LITERATURE AND SAMPLES UPON REQUEST

Mission Pharmacal Co.
SAN ANTONIO 6, TEXAS

PR-61

Chicago Trauma Course Set for April 25-28

The Sixth Postgraduate Course on Fractures and Other Trauma, sponsored by the Chicago Committee on Trauma of the American College of Surgeons, will be held April 25, 26, 27, and 28, 1962, at the John B. Murphy Memorial Auditorium, 50 East Erie St., Chicago, Ill.

This three and one-half day course is dedicated to the late Dr. Philip Lewin, renowned orthopaedic surgeon of Chicago. He cooperated for many years in the efforts of the Chicago Committee on Trauma and was one of the founders of the American Academy of Orthopaedic Surgeons. He was the author of numerous publications and many textbooks related to his specialty, and at one time was professor and chairman of the Department of Orthopaedic Surgery at Northwestern University.

A distinguished faculty of eight guest speakers and teachers from the five medical schools of Chicago will discuss many phases of trauma, with particular emphasis on hand injuries, plastic surgery, tendon injuries, peripheral nerve injuries, fractures and dislocations in adults and children; trauma to the face, chest, abdomen, blood vessels, and genito-urinary tract; bone grafts, athletic injuries, tetanus, shock, and trauma to the lumbar discs. Following each presentation there will be ample time allotted for a question and answer period.

Dr. Sam W. Banks is chairman of the Chicago Committee on Trauma of the American College of Surgeons, Dr. J. D. Farrington is secretary-treasurer, and Dr. John J. Fahey is chairman of the Committee on Postgraduate Course on Fractures and Other Trauma of the Chicago Committee on Trauma. Inquiries should be addressed to Dr. Fahey at 1791 West Howard St., Chicago 26, Ill.

The registration fee will be $75.00. Residents and interns will be admitted free by letter from chief of services. This course is acceptable for 31½ hours of category II credit by the American Academy of General Practice.

Each registrant will be a guest of the Chicago Regional Committee on Trauma for one luncheon, and for the cocktail party on Thursday evening, April 26, at the Drake Hotel.

A LAUGHING MATTER

As the intern jumped from the ambulance to care for the injured pedestrian, he asked, "Did you get the license number of the driver who struck you?"

"No," came the feeble reply, "but I'd remember his laugh anywhere."



f you had to make your own children's multivitamins

. chances are you'd try to make them very much like our new Vi-Daylin® Chewable with Entrapped Flavor. ıtrapped Flavor means a better tasting chewable children's multivitamin; one with no vitamin aftertaste. Here's ıy: 1. We coat all the vitamins in a digestible film that does not dissolve until it reaches the gastrointestinal tract. ıis means that unpleasant strong vitamin tastes are not released in the mouth, but in the g-i tract where they e most quickly absorbed. 2. We make certain that every Vi-Daylin Chewable tablet tastes citrus sweet ıd good to every patient, everytime; we coat the flavoring oils in each tablet in a water soluble film. This m dissolves immediately in the mouth, releasing the full bouquet of our citrus-candy flavoring agents. Now ɔu know why little patients always taste the flavor, never the vitamins, when you prescribe ew Vi-Daylin Chewable. And the formula's all you'd expect, with reasonable amounts of A & D. aste test them yourself and you'll prescribe **VI-DAYLIN CHEWABLE** regularly and soon.

ABBOTT

Profile of a multivitamin



New Vi-Daylin Chewable —with entrapped flavor

New Formula

In recognition of recent medical thinking, we've reduced the vitamin D in our formula from 20 mcg. (800 units) to 10 mcg. (400 units). At the same time, we've increased the vitamin C content from 40 mg. to 50 mg. per tablet and per 5-cc. lemon-candy teaspoonful.

All Other Elements Remain at Their Previous Level.

Vitamin A (3000 units)	0.9 mg.
Thiamine Mononitrate	1.5 mg.
Riboflavin	1.2 mg.
Cobalamin (B_{12})	3 mcg.
Nicotinamide	10 mg.
Pyridoxine Hydrochloride	1 mg.

New Low Price

In quantities of 100 tablets our new Chewable costs less than 4¢ a tablet and the normal dosage is one tablet daily. No financial hardship for your patients when you prescribe or recommend Vi-Daylin.

New Shape, New Color, New Bottle

New Vi-Daylin Chewable tablets are football shaped. This shape got a high degree of acceptance in our taste-tests and seems to have an intrinsic interest for children. The orange color ties in with the mild, sweet citrus flavor. And the wide-mouthed new bottle looks handsome on the table.

Taste-Test New Vi-Daylin Chewable Yourself

Won't you taste-test new Vi-Daylin Chewable multivitamins yourself? We're certain you'll be pleasantly surprised at their sweet good taste. They're the candy-flavored multivitamins with *entrapped flavor* . . . little folks taste the candy flavor, never the vitamins.

ABBOTT

Vi-Daylin—Vitamins A, D, B_1, B_2, B_6, B_{12}, C, and Nicotinamide, Abbott

New from Saunders

1 Reid — Textbook of Obstetrics

A New Book!—Offers keen insight into the biologic aspects of birth

A fresh approach to obstetrics emphasizing biologic rather than mechanistic aspects. This valuable new book combines basic fundamentals of obstetrics with sound principles of patient management. It will help you solve many maternity problems—from early diagnosis of pregnancy to safe delivery. Look for features such as these: Detailed instructions on managing complications—Emphasis on fetal welfare as well as maternal safety—Help on understanding psychological problems of the expectant mother—Superb illustrations of normal and abnormal conditions, techniques, instruments, etc. Topics include: *Medical and surgical diseases of pregnancy—Assessment of maternal and perinatal mortality—Shock, coagulation defects and acute renal failure—Physiology and mechanisms of labor in parent types of pelves—etc.*

By DUNCAN E. REID, M.D., William Lambert Richardson Professor of Obstetrics and Head of the Department of Obstetrics and Gynecology, Harvard University Medical School; Chief-of-Staff, Boston Lying-In Hospital. Illustrated by EDITH TAGRIN. 1087 pages, 7″x10″, with 442 illustrations. About $20.00.

New—Just Ready!

2 Major and Delp — Physical Diagnosis

New (6th) Edition!—Details procedures for examining every area of the body

Tells how to extract maximum information from physical examination by using the four methods of diagnosis—inspection, palpation, percussion and auscultation. Step-by-step procedures for examination of each body area are carefully delineated in this practical book—what to look for, listen for, and how to use your sense of touch to the greatest advantage.

Completely rewritten for this edition, the text includes such new topics as: *taking a neuropsychiatric history—Physical diagnosis of the child, including normal variations in heart sounds—Examination of the pharynx, the larynx and cheeks—Diagnosis of peripheral vascular disease.* Extensive revisions are reflected in sections on: diseases of the eye; auscultation of the heart; coronary insufficiency; acute myocardial infarction.

By RALPH H. MAJOR, M.D., Professor of Medicine and of the History of Medicine; and MAHLON H. DELP, M.D., Professor of Medicine, The University of Kansas. 355 pages, 6½″x10″, with 527 illustrations. About $7.00. *New (6th) Edition—Just Ready!*

3 Adler — Textbook of Ophthalmology

New (7th) Edition!—Helps the family physician manage common eye problems

One of the most useful books on eye care the family physician can own. This text concentrates on the ophthalmic problems of the nonspecialist. Coverage ranges through anatomy and physiology of the eye, methods of examination, malformations and diseases, treatment, indications that call for a specialist.

For this edition a new chapter on *Symptomatology* links each visual and nonvisual symptom to the disorders with which it may be associated. You'll find new discussions covering: *Influence of hormones on Graves' disease—Use of tetracyclines in treating viral diseases affecting the eye—Treatment of hyphema to prevent glaucoma and blood staining of the cornea—Inborn errors of metabolism—Ocular manifestations of diseases of adrenal glands—Radiation burns of the retina and choroid—Blast injuries— etc.*

By FRANCIS HEED ADLER, M.D., Emeritus Professor of Ophthalmology, University of Pennsylvania Medical School; Consulting Surgeon, Wills Eye, Philadelphia General, and Children's Hospitals of Philadelphia. About 565 pages, 6″x9¼″, with 288 illustrations, 26 in color. About $9.50. *New (7th) Edition—Just Ready!*

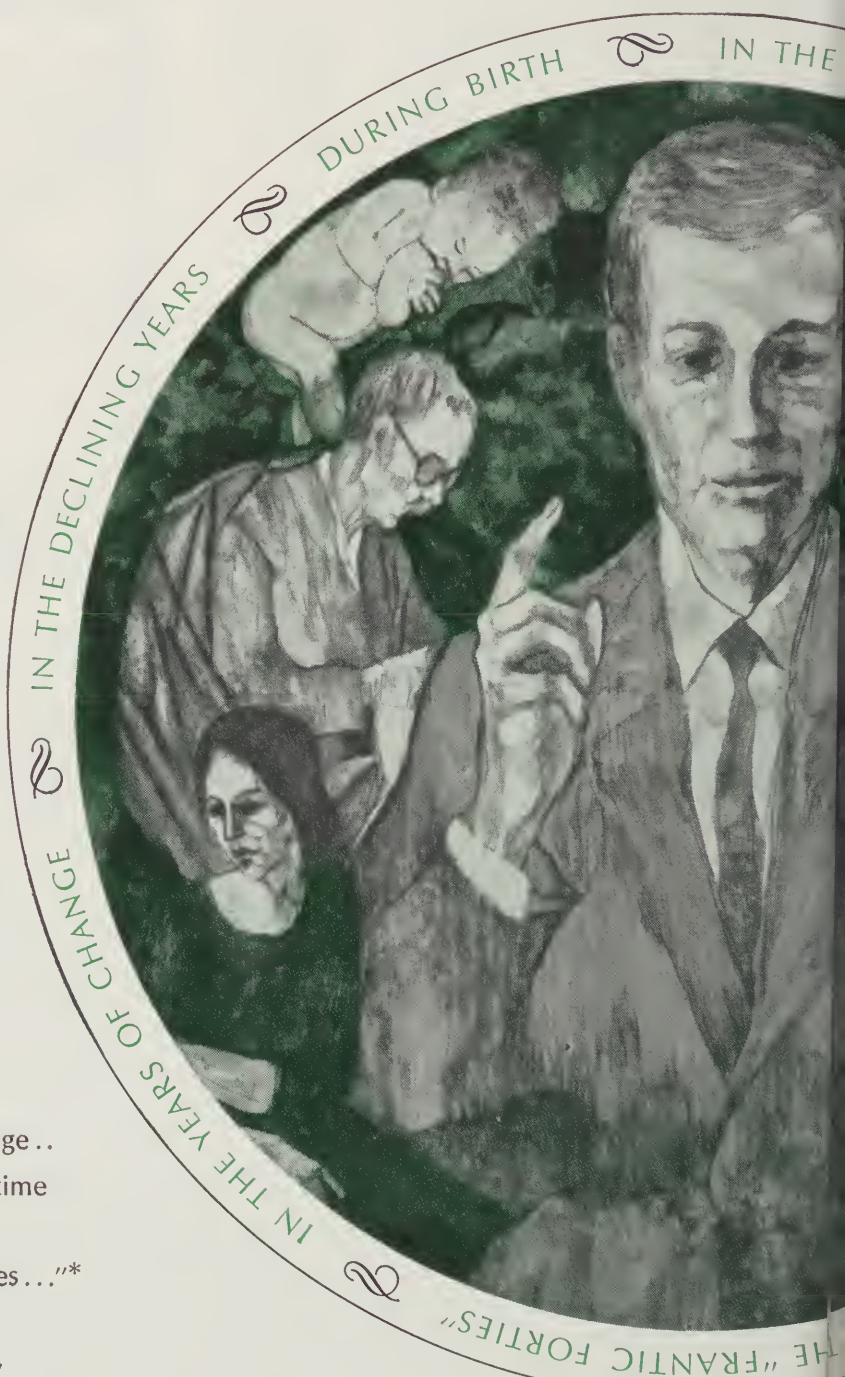
Order Today from **W. B. SAUNDERS COMPANY**
West Washington Square Philadelphia 5

Please send me the following books and bill me:

- ☐ Reid's Textbook of Obstetrics, about $20.00
- ☐ Major and Delp's Physical Diagnosis, about $7.00
- ☐ Adler's Textbook of Ophthalmology, about $9.50

Name.....

Address..... SMJ-4-62



"All the world's a stage..
And one man in his time
plays many parts,
His acts being seven ages..."*

*As You Like It, Act II, Sc. 7

through all seven ages of man

VISTARIL®

effective anxiety control with a wide margin of safety



in the "frantic forties"—For many patients in their "frantic forties," the pace never slackens—may even accelerate—while tensions multiply and physical resources dwindle. Out of this seedbed of stresses and anxieties grow much of the alcoholism, psychosomatic illness, and sympathetic overactivity of the middle years.

In each of these areas, VISTARIL is often effective alone or as an adjunct to other therapy. For example, in his series of 67 patients, King[1] found that 62 showed remission of anxiety, tension, nervousness and insomnia, as well as alleviation of symptoms associated with various functional and psychophysiological disturbances. He concludes that VISTARIL is well suited for use in the practice of internal medicine.

In the emergent situation, VISTARIL, administered parenterally, is a valuable aid to the physician in managing patients who escape psychic conflict via alcohol. According to Weiner and Bockman,[2] who obtained beneficial results in 81% of 175 patients studied, hydroxyzine (VISTARIL) may well be considered a tranquilizer of choice in the management of the acutely agitated alcoholic.

1. King, J. C.: Int. Rec. Med. 172:669, 1959. 2. Weiner, L. J., and Bockman, A. A.: Sci. Exhibit, A.M.A., Ann. Meet., New York City, June 26-30, 1961.

VISTARIL® CAPSULES AND ORAL SUSPENSION
HYDROXYZINE PAMOATE

VISTARIL® PARENTERAL SOLUTION
HYDROXYZINE HYDROCHLORIDE

Science for the world's well-being® Pfizer PFIZER LABORATORIES
Division, Chas. Pfizer & Co., Inc.
New York 17, New York

See "IN BRIEF" on the next page

IN BRIEF VISTARIL®

VISTARIL, hydroxyzine pamoate (oral) and hydroxyzine hydrochloride (parenteral solution), is a calming agent unrelated chemically to phenothiazine, reserpine, and meprobamate.

VISTARIL acts rapidly in the symptomatic treatment of a variety of neuroses and other emotional disturbances manifested by anxiety, apprehension, or fear—whether occurring alone or complicating a physical illness. The versatility of VISTARIL in clinical indications is matched by wide patient range and a complete complement of dosage forms. The calmative effect of VISTARIL does not usually impair discrimination. No toxicity has been reported with the use of VISTARIL at the recommended dosage, and it has a remarkable record of freedom from adverse reactions.

INDICATIONS: VISTARIL is effective in premenstrual tension, the menopausal syndrome, tension headaches, alcoholic agitation, dentistry, and as an adjunct to psychotherapy. It is recommended for the management of anxiety associated with organic disturbances, such as digestive disorders, asthma, and dermatoses. Pediatric behavior problems and the emotional illnesses of senility are also effectively treated with VISTARIL.

ADMINISTRATION AND DOSAGE: Dosage varies with the state and response of each patient, rather than with weight, and should be individualized for optimum results. The usual adult oral dose ranges from 25 mg. t.i.d. to 100 mg. q.i.d. Usual children's oral dose: under 6 years, 50 mg. daily in divided doses; over 6 years, 50-100 mg. daily in divided doses.

Parenteral dosage for adult psychiatric and emotional emergencies, including acute alcoholism: I.M.—50-100 mg. Stat., and q.4-6h., p.r.n. I.V.—50 mg. Stat., maintain with 25-50 mg. I.V. q.4-6h., p.r.n.

SIDE EFFECTS: Drowsiness may occur in some patients; if so, it is usually transitory, disappearing within a few days of continued therapy or upon reduction of dosage. Dryness of mouth may be encountered at higher doses.

PRECAUTIONS: Drowsiness may occur in some patients. The potentiating action of hydroxyzine should be taken into account when the drug is used in conjunction with central nervous system depressants. Do not exceed 1 cc. per minute I.V. Do not give over 100 mg. per dose I.V. Parenteral therapy is usually for 24-48 hours, except when, in the judgment of the physician, longer-term therapy by this route is desirable.

SUPPLIED: VISTARIL *Parenteral Solution* (hydroxyzine hydrochloride)—10 cc. vials, 25 mg. per cc. and 50 mg. per cc.; 2 cc. ampules, 50 mg. per cc. VISTARIL *Capsules* (hydroxyzine pamoate)—25, 50, and 100 mg. VISTARIL *Oral Suspension* (hydroxyzine pamoate)—25 mg. per 5 cc. teaspoonful.

More detailed professional information available on request.

Science for the world's well-being®

Pfizer PFIZER LABORATORIES
Division, Chas. Pfizer & Co., Inc.
New York 17, New York

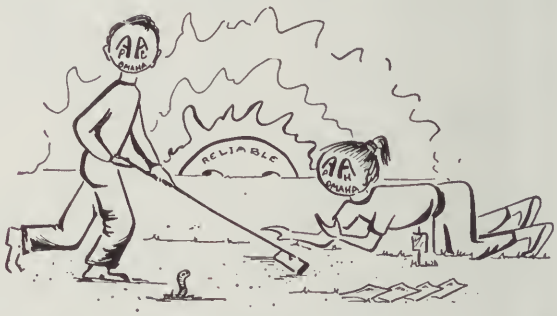
Burdick



Has the diagnostic equipment in your office kept pace with your own knowledge of new drugs, medicines and technics?

Write us for full details on the Burdick EK-III Dual-Speed Electrocardiograph.

KAY SURGICAL INC.
663 North State St. • Jackson, Miss.



Protection Against Loss of Income From Accident and Sickness as Well as Hospital Expense Benefits for You and All Your Eligible Dependents.

ALL PREMIUMS COME FROM PHYSICIANS SURGEONS DENTISTS ALL BENEFITS GO TO

PHYSICIANS CASUALTY & HEALTH ASSOCIATIONS
OMAHA 31, NEBRASKA
Since 1902

Handsome Professional Appointment Book sent to you FREE upon request.



Kent's development of the "Micronite" filter revolutionized the cigarette industry. Shortly after introduction of Kent with its famous filter, the swing to filter cigarettes got started in earnest. And no wonder. Kent with the "Micronite" filter refines away harsh flavor, refines away hot taste, makes the taste of a cigarette mild and kind.

Yes, Kent is kind-tasting to your taste buds, kind-tasting to your throat. Your taste buds become clear and alive with Kent.

• • •

Your taste buds will tell you why you'll feel better about smoking with the taste of Kent.

A PRODUCT OF P. LORILLARD COMPANY · FIRST WITH THE FINEST CIGARETTES · THROUGH LORILLARD RESEARCH

© 1961 P. LORILLARD CO.

AMA to Publish Handbook Of Medical Terminology

The American Medical Association will publish in June the first edition of a paperback pocket-sized guide to the preferred medical terms of all important diseases, it was announced recently.

The handbook represents the first step in developing a system of correct medical terminology so that physicians from all parts of the world can understand each other, Dr. Burgess L. Gordon, AMA's director of nomenclature, said.

It will provide a definition of each disease indicating the known or possible causes and the most characteristic disturbances and findings, and through frequent revision will serve as a focal point of expanding medical knowledge, he said.

It will be kept as nearly up to date as possible. Revised editions are anticipated every 12 or 18 months.

No similar medical publication of handbook size is available for medical students, hospital staffs, practicing physicians, or medical record librarians.

Entitled "Current Medical Terminology," the handbook will improve communication and understanding within the profession by promoting the use of correct terminology. It also should be invaluable in the coding and filing of medical information which is essential to further research and advances in medicine.

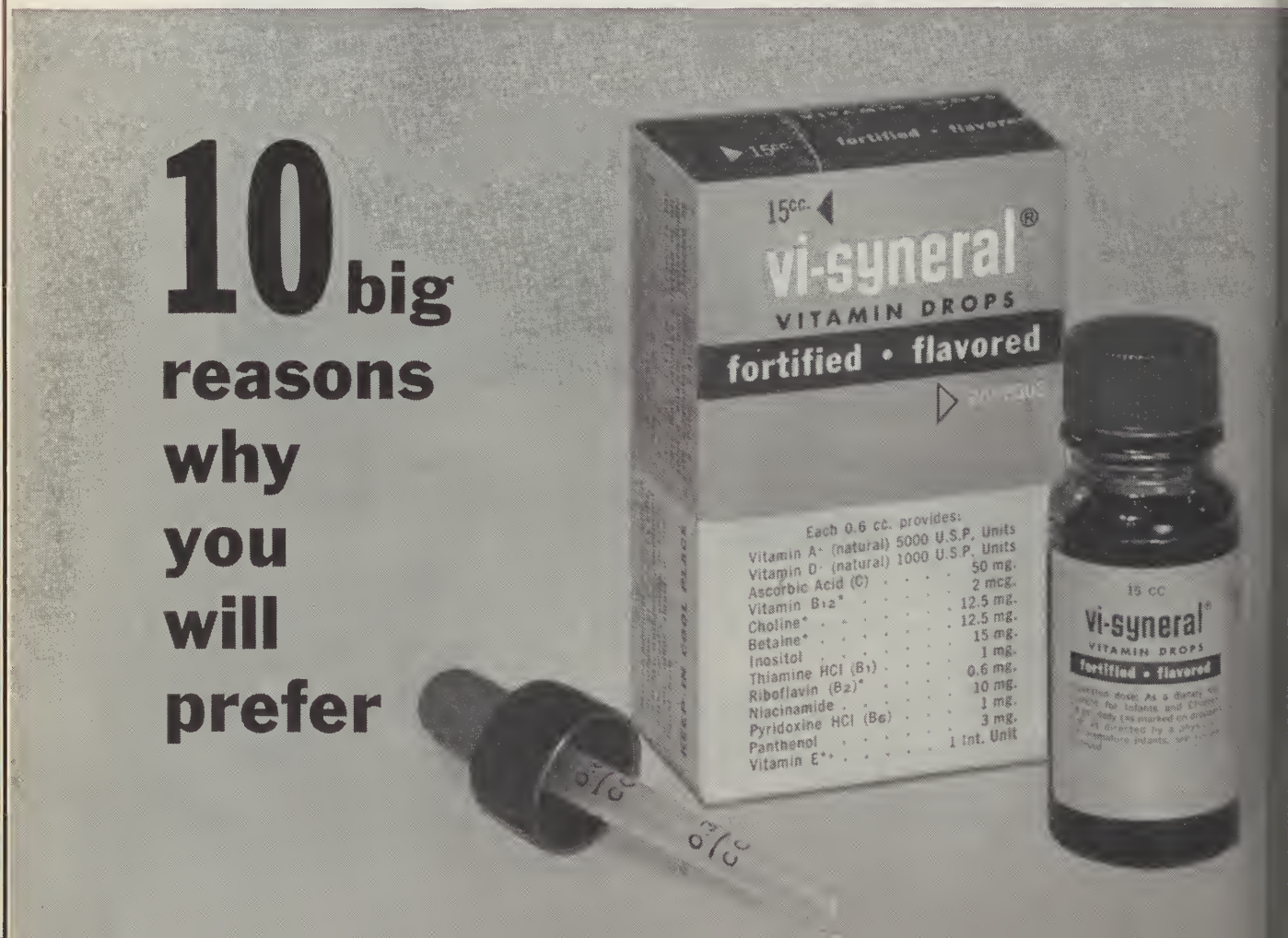
The rapid pace of medical developments in the post-World War II years placed a heavy burden on old methods of compiling and disseminating up-to-date terminology, Dr. Gordon said.

New or modified concepts emerged "even before the printer's type turned from hot to cold," he said.

Standard Nomenclature of Diseases and Operations (SNDO), the official listing of diseases published every 10 years since 1928, became "excessively large and complicated," he said.

The 1961 SNDO carries 18,000 names in a hard-cover book of 964 pages. The same condition is sometimes referred to under several different names, causing confusion.

This situation led to a decision in April 1960, for the AMA to publish a handbook of all important diseases and conditions listed in SNDO, the International Classification of Diseases, medical dictionaries, and standard books of medicine and the specialties to standardize terminology and



facilitate the professional and administrative pursuits of modern medicine.

The first issue of Current Medical Terminology, eliminating duplication and outdated terms, will contain less than 500 pages and sell for $2, the cost of publication.

It will list alphabetically 4,000 diseases and conditions, including psychological and neurological disorders, and give definitions based on what is generally considered established data. The definitions will give a brief, overall picture of the disease, including the causes, symptoms, laboratory findings, pathology, and complications.

The terms were selected on the basis of general acceptance or usage for at least three years.

The enormous project was expedited with the aid of a computer. Once the book was developed, data were fed into the IBM machine which assembled and alphabetized the material, finally turning out copy ready for the printer.

The computer also will make it possible to keep a "running check" on the accuracy of the terminology, according to Dr. Gordon.

With the help of medical schools, practicing physicians and several large urban hospitals, he said, it is hoped that a cross-section evaluation of patient records can be developed to establish the frequency of the different manifestations of disease. When fed this information on punch cards, the computer can quickly and accurately determine how often the various elements of a disease occur and in this way show whether the definition in the handbook is accurate or needs revision, he said.

Current Medical Terminology is not regarded as a replacement for SNDO, he added, but rather a companion to the larger book.

State Board of Health Sets Licensure Examination Dates

The Mississippi State Board of Health will hold medical licensure examinations on June 18 and 19 at the Robert E. Lee Hotel in Jackson.

Examinations on the first two years' study of medicine will be held June 18, and examinations on the last two years' study will be held June 19. Examinations begin at 8:00 a.m. each day.

Further information may be obtained from Dr. A. L. Gray, executive officer, Mississippi State Board of Health.

vi-syneral vitamin drops fortified (flavored)

1. provides vitamin B_{12}.
2. 100% natural vitamin A complex.
3. 100% natural vitamin D complex.
4. vitamin E to reduce susceptibility of red blood cells to hemolysis.
5. vitamins A, D, and E made aqueous* for far faster and more complete absorption and utilization.
6. vitamin B_6 . . . anticonvulsant vitamin.
7. lipotropic agents.
8. other essential B complex factors and vitamin C.
9. delicious fruity flavor.
10. no burps . . . no fish oil taste or odor . . . allergens removed.

*Protected by U.S. Pat. No. 2,417,299 owned and controlled by U. S. Vitamin & Pharmaceutical Corporation

SAMPLES of VI-SYNERAL VITAMIN DROPS FORTIFIED on request

u. s. vitamin & pharmaceutical corporation

Arlington-Funk Laboratories, division • 800 Second Ave., New York 17, N.Y.



In acne—24-hour-a-day skin care with antibacterial pHisoHex®

(contains 3% hexachlorophene)

In acne, pHisoHex, antiseptic detergent, provides *continuous* antibacterial action against the infection factor. With exclusive, frequent use, pHisoHex builds up an effective antibacterial film on the skin that resists rinsing—lasts from wash to wash. pHisoHex augments any other therapy of acne.

When pHisoHex was used for washing by 42 patients with acne, "the results were uniformly encouraging. . . ."[1] "No patient failed to improve."[1]

pHisoHex cleans the skin of acne patients better than soap because it is forty per cent more surface active. It is a powerful emulsifier of oil, an action particularly beneficial in acne. Moreover, it cleans the orifices of the sebaceous glands, sweat glands and hair follicles more rapidly and more thoroughly than soap. pHisoHex lacks the potentially harmful qualities of soap. It is nonalkaline, nonirritating and hypoallergenic.[2]

For acne, prescribe pHisoHex—and get improved results.

pHisoAc® Cream dries, peels and masks lesions. Use it with pHisoHex washings to help prevent comedones, pustules and scarring. Contains colloidal sulfur 6 per cent, resorcinol 1.5 per cent and hexachlorophene 0.3 per cent.

pHisoHex is available in unbreakable squeeze bottles of 5 oz. and 1 pint—and in combination package with pHisoAc Cream.

1. Hodges, F. T.: *GP* 14:86, Nov., 1956.
2. Guild, B. T.: *Arch. Dermat.* 51:391, June, 1945.

Winthrop LABORATORIES
New York 18, N.Y. (1665M)



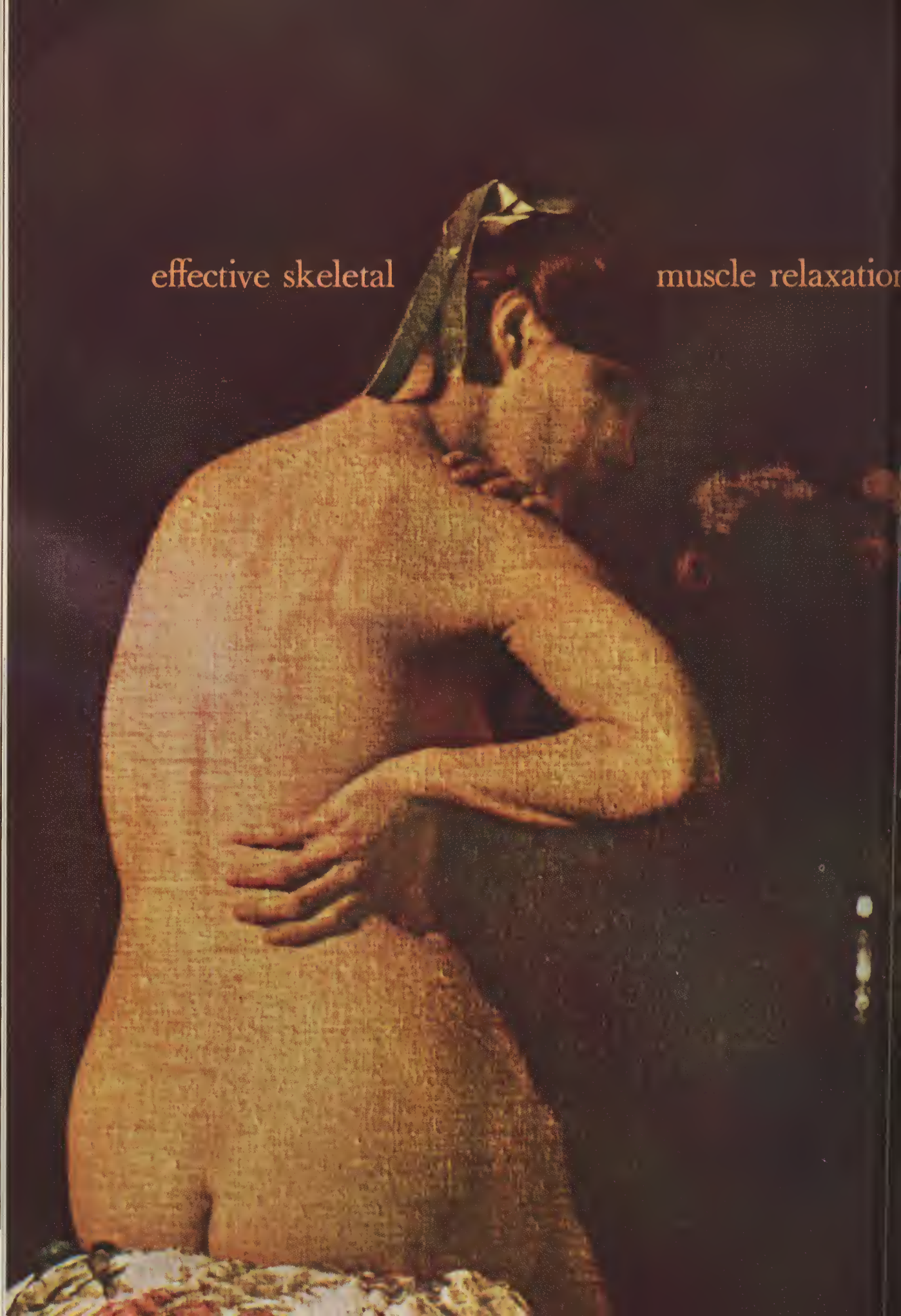
In each DONNATAL Tablet, Capsule or 5 cc. Elixir		In each DONNATAL Extentab
0.1037 mg.	hyoscyamine sulfate	0.3111 mg.
0.0194 mg.	atropine sulfate	0.0582 mg.
0.0065 mg.	hyoscine hydrobromide	0.0195 mg.
16.2 mg. (¼ gr.)	phenobarbital	(¾ gr.) 48.6 mg.

DONNATAL tablets • capsules • elixir
— for an easily adjusted t.i.d. or q.i.d. dosage regimen.

DONNATAL EXTENTABS®
— for day-long or night-long benefits on a single dose.

Robins

A. H. ROBINS CO., INC. • Richmond, Virginia


effective skeletal
muscle relaxatio

each patient may require



control the two-headed dragon of *pain & spasm*

"HIGH THERAPEUTIC EFFECT"

A growing library of clinical reports on the use of ROBAXIN in painful skeletal muscle spasm continues to reaffirm its effectiveness, dependability, rapidity of action, and lack of significant side effects.

Some recent comments:

"...high therapeutic effect..."[5]

"...superior to other relaxants..."[9]

"...remarkably effective..."[2]

"...a high potential for prompt relief..."[8]

"...unusual freedom from toxicity..."[1]

For dramatic promptness: ROBAXIN INJECTABLE usually provides relaxation of painful spasm *in minutes*. Clinicians have reported that it is "effective in producing immediate relaxation,"[7] and brings about "dramatic relief of pain and spasm" within 15 to 20 minutes.[3]

In each 10-cc ampul Methocarbamol (Robins) 1.0 Gm.

For prolonged use with safety: ROBAXIN TABLETS safely maintain relief of spasm *without drowsiness*. "The effect does not wax and wane,"[4] and continued administration shows "no deleterious effect on normal muscle tone."[6]

In each white, scored tablet Methocarbamol (Robins) 0.5 Gm.

ROBAXIN

Robins

(Robaxin is a trademark (Reg. U. S. Pat. Off. 257041)

For concurrent analgesia: ROBAXISAL TABLETS, combining ROBAXIN with aspirin, are useful in spasm-triggering states that are painful in themselves, or when pain is prominently associated with muscle spasm.

In each pink-and-white laminated tablet Methocarbamol (Robins) 400 mg.
Acetylsalicylic acid (5 gr.) 325 mg.

For concurrent analgesia plus sedation: ROBAXISAL-PH TABLETS, combining ROBAXIN with the sedative-reinforced analgesic PHENAPHEN®, are particularly helpful in giving comprehensive relief to patients in whom muscle spasm is accompanied by spasm-potentiating pain and apprehension.

In each green-and-white laminated tablet			
Methocarbamol (Robins)	400 mg.	Acetylsalicylic acid (1¼ gr.)	81 mg.
Phenacetin	97 mg.	Hyoscyamine sulfate	0.016 mg.
		Phenobarbital (⅛ gr.)	8.1 mg.

ROBAXISAL

Robins

References: 1. Carpenter, E. B.: South. M. J. 51:627, 1958. 2. Hudgins, A. P.: Clin. Med. 8:243, 1961. 3. Lamphier, T. A.: J. Abdomin. Surg. 3:55, 1961. 4. Levine, I. M.: Med. Clin. N. America 45:1017, 1961. 5. Meyers, G. B., and Urbach, J. R.: Penna. M. J. 64:876, 1961. 6. Perchuk, E., Weinreb, M., and Aksu, A.: Angiology 12:102, 1961. 7. Poppen, J. L., and Flanagan, M. E.: J.A.M.A. 171:298, 1959. 8. Schaubel, H. J.: Orthopedics 1:274, 1959. 9. Steigmann, F.: Am. J. Nursing 61:49, 1961.

A. H. ROBINS COMPANY, INC. • Richmond, Virginia

CONSISTENTLY SUCCESSFUL IN RELIEVING DRY, ITCHY SKIN

Sardo® BATH OIL

STUDY 1 *Spoor, H. J.: N. Y. State J.M. 58:3292, 1958.*

satisfactory results in 88% of cases

comments: "In practically every instance... the patients experienced relief from dryness and pruritus."

STUDY 2 *Lubowe, I. I.: Western Med. 1:45, 1960.*

satisfactory results in 94% of cases

comments: Sardo "reduced inflammation, itching, irritation, and other discomfort..."

STUDY 3 *Weissberg, G.: Clin. Med. 7:1161, 1960.*

satisfactory results in 91% of cases

comments: "Scaling disappeared, and... the skin became softer and smoother..." with Sardo.

INDICATIONS

eczematoid dermatitis
atopic dermatitis
senile pruritus
contact dermatitis
nummular dermatitis
neurodermatitis
soap dermatitis
ichthyosis



SARDO IN THE BATH releases millions of microfine water-miscible globules* which act to (a) lubricate and soften skin, (b) replenish natural emollient oil, (c) prevent excessive evaporation of essential moisture.

Patients appreciate pleasant, convenient SARDO.
Non-sticky, non-sensitizing, economical. Bottles of 4, 8 and 16 oz.



for samples and literature, please write...

SARDEAU, INC. 75 East 55th Street, New York 22, N. Y. *Patent Pending, T.M. © 1961

IT'S EASY
TO SEE
THAT THE
BIG 94TH
IS
THE GREATEST!

With or without the bifocals, anybody can see that MSMA's 94th Annual Session is the greatest! Seven scientific sections: EENT, General Practice, Medicine, Obstetrics and Gynecology, Preventive Medicine, Pediatrics, and Surgery! Fifteen specialty societies, 90 exhibits, medical alumni dinners, the House of Delegates, golf tournament, skeet shoot, the Auxiliary—something for everybody every minute—and the medical headliner of the decade, the Symposium on Space Medicine. Run—don't walk—to the nearest mailbox and send your reservation request to Mr. O. F. McDade, MSMA Housing Bureau, Hotel Heidelberg, Jackson. Ask for reservations at either of the co-headquarters hotels, the Heidelberg (no suites available) or the King Edward. Or stay at the better-than-ever Robert E. Lee, Walthall, or new Sun 'N Sand. But whatever you do, hurry!

MSMA'S 94th Annual Session
Jackson, May 7-10, 1962

MEETINGS

NATIONAL AND REGIONAL

American Medical Association, June 24-28, 1962, Chicago, Ill. F. J. L. Blasingame, Executive Vice President, 535 N. Dearborn St., Chicago 10, Ill.

American Academy of General Practice, April 6-13, 1962, Las Vegas, Nev. Mr. Mac F. Cahal, Executive Director, Volker Blvd., at Brookside, Kansas City 12, Mo.

American College of Surgeons, Clinical Congress, Oct. 15-19, 1962, Atlantic City. William E. Adams, 40 E. Erie St., Chicago 11, Secretary.

STATE AND LOCAL

Mississippi State Medical Association, May 7-10, 1962, Jackson. Mr. Rowland B. Kennedy, Executive Secretary, 735 Riverside Drive, Jackson.

Mississippi Chapter, American College of Surgeons, Nov. 16, 1962, Heidelberg Hotel, Jackson. Edward C. Hamilton, 14th St. and 25th Ave., Gulfport, Secretary.

Amite-Wilkinson Counties Medical Society, First Tuesday March, June, September, December. S. E. Field, Centreville, Secretary.

Central Medical Society, First Tuesday Monthly, 6:30 p.m., Robert E. Lee Hotel, Jackson. George E. Gillespie, 514-A East Woodrow Wilson Drive, Jackson, Secretary.

Claiborne County Medical Society. D. M. Segrest, Port Gibson, Secretary.

Clarksdale and Six Counties Medical Society, Second Wednesday March and November, 2:00 p.m., Clarksdale. Whitman B. Johnson, Jr., 645 Evelyn Ave., Clarksdale, Secretary.

Coast Counties Medical Society, First Wednesday March, June, September, and November. Charles N. Floyd, 1412-23rd Ave., Gulfport, Secretary.

Delta Medical Society, Second Wednesday April and October. Howard A. Nelson, 308 Fulton St., Greenwood, Secretary.

DeSoto County Medical Society, Second Thursday January, April, July, and October, 1:00 p.m., Hernando Motel Cafe, Hernando. L. L. Minor, Route 9, Memphis 9, Tenn., Secretary.

East Mississippi Medical Society, First Tuesday February, April, June, August, October, and December. Hugh S. Rayner, Jr., 1216-21st Ave., Meridian, Secretary.

Homochitto Valley Medical Society, Fourth Tuesday Monthly, 7:30 p.m., Natchez Country Club, Natchez. W. T. Colbert, Natchez General Hospital, Natchez, Secretary.

North Central District Medical Society, Second Wednesday March and September. Robert B. Townes, Jr., 1196 Mound St., Grenada, Secretary.

Northeast Mississippi Medical Society, Second Tuesday March, June, September, and December, Tupelo. Thomas W. Wesson, 421 Main St., Tupelo, Secretary.

North Mississippi Medical Society, First Thursday January, April, and October, Oxford. Marcus E. Morrison, 512 Van Buren Ave., Oxford, Secretary.

Pearl River County Medical Society, Second Monday March, June, September, and December. Samuel O. Massey, Jr., 220 E. Canal St., Picayune, Secretary.

South Mississippi Medical Society, Second Thursday March, June, September, and December. Thomas F. Puckett, 715 Arledge St., Hattiesburg, Secretary.

Tri-County Medical Society, Second Tuesday March, June, September, and December. A. V. Beacham, Magnolia, Secretary.

West Mississippi Medical Society, Second Tuesday January, April, July, and October, 7:00 p.m., Old Southern Tea Room, Vicksburg. Tom H. Mitchell, The Street Clinic, Vicksburg, Secretary.

Under Distinguished Sponsorship . . .

Four authoritative scientific bodies under three organizations: the United States Aerospace Medical Center, the Medical Department of the United States Air Force, the National Aeronautics and Space Administration, and the Mississippi State Medical Association—USAF, NASA, and MSMA—are pooling their resources to bring Mississippi physicians one of the most important scientific presentations of the sixties, the 94th Annual Session's highlight, the Symposium on Space Medicine.

Hear the three internationally known leaders in space medicine and a key national figure in government: Drs. Hubertus Strughold, John Paul Stapp, David G. Simons, and Senator John Stennis. Examine the Mercury MA-4 spacecraft, the nation's first successful orbital vehicle. It's all yours at the giant 94th Annual Session, Jackson, on May 9, 1962.

Seating for only 1,200 will be available with 400 seats reserved for guests of physicians. Want to invite business and opinion leaders of your community to this once-in-a-lifetime symposium? Write MSMA today for invitations. The number available is, of course, limited.

Symposium on Space Medicine
MSMA'S 94th Annual Session
Jackson, May 9, 1962

a medical milestone at America's crossroads

AMA 111th Annual Meeting

CHICAGO'S MAGNIFICENT McCORMICK PLACE • JUNE 24-28, 1962

This is Chicago's splendid, new exposition center offering every conceivable convenience in the nation's most exciting convention city. More than a convention hall, McCORMICK PLACE is a complex of unobstructed exhibit area, spacious meeting rooms, beautiful theaters, glamorous restaurants and lounges, and colorful promenades adjacent to huge parking lots and enticing lagoons. And in this spectacular setting on the shores of Lake Michigan just a summer stroll from midtown hotels, stores and entertainment districts, air-conditioned McCORMICK PLACE offers you the unsurpassed opportunity to participate in the most comprehensive of all medical meetings, the ultimate in post-graduate education.



IT'S ALL FOR YOU ★ CONVENIENT, COMPACT, AND AIR-CONDITIONED ★ AT THE CROSSROADS CHICAGO ★ THE PLACE TO KEEP PACE IS McCORMICK PLACE!

Here, completely assembled—all in this one building—will be the greatest cross-section of every medical interest:

★ More than 200 eminent scientists in the Multiple Disciplinary Research Forum

★ Eight general programs, never before scheduled, by the combined specialties

★ Over 700 exhibits staffed by top researchers and expert technologists

★ Surgical innovations and symposia on live color TV and motion picture premieres

★ Special daily features representing each medical discipline—and countless other vital programs to serve you in your practice

AMERICAN MEDICAL ASSOCIATION
535 North Dearborn Street, Chicago 10, Illinois

See JAMA May 19 for complete scientific program . . . for physician advance registration and hotel reservation forms

Schering

Naqua®

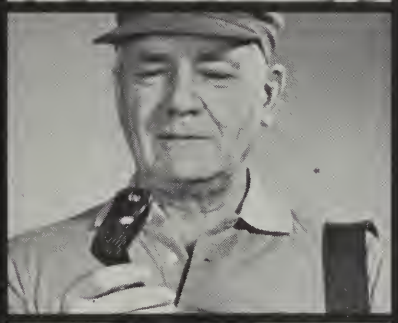
brand of trichlormethiazide

to help them live with their hypertension

Good start on the day's work (sleep is restful, morning headache gone)



Golf today, fishing tomorrow (retired but not easily tired)



Housework in a.m., shopping in p.m. (B.P. down, dizzy spells relieved)



Gardening is enjoyable again (edema gone, spirits up)



often the only therapy needed to control blood pressure and relieve symptoms in mild or moderate cases*

NAQUA potentiates other antihypertensives when used adjunctively.... Side effects are minimal.... Economically priced.

Packaging: NAQUA Tablets, 2 or 4 mg., scored, bottles of 100 and 1000.

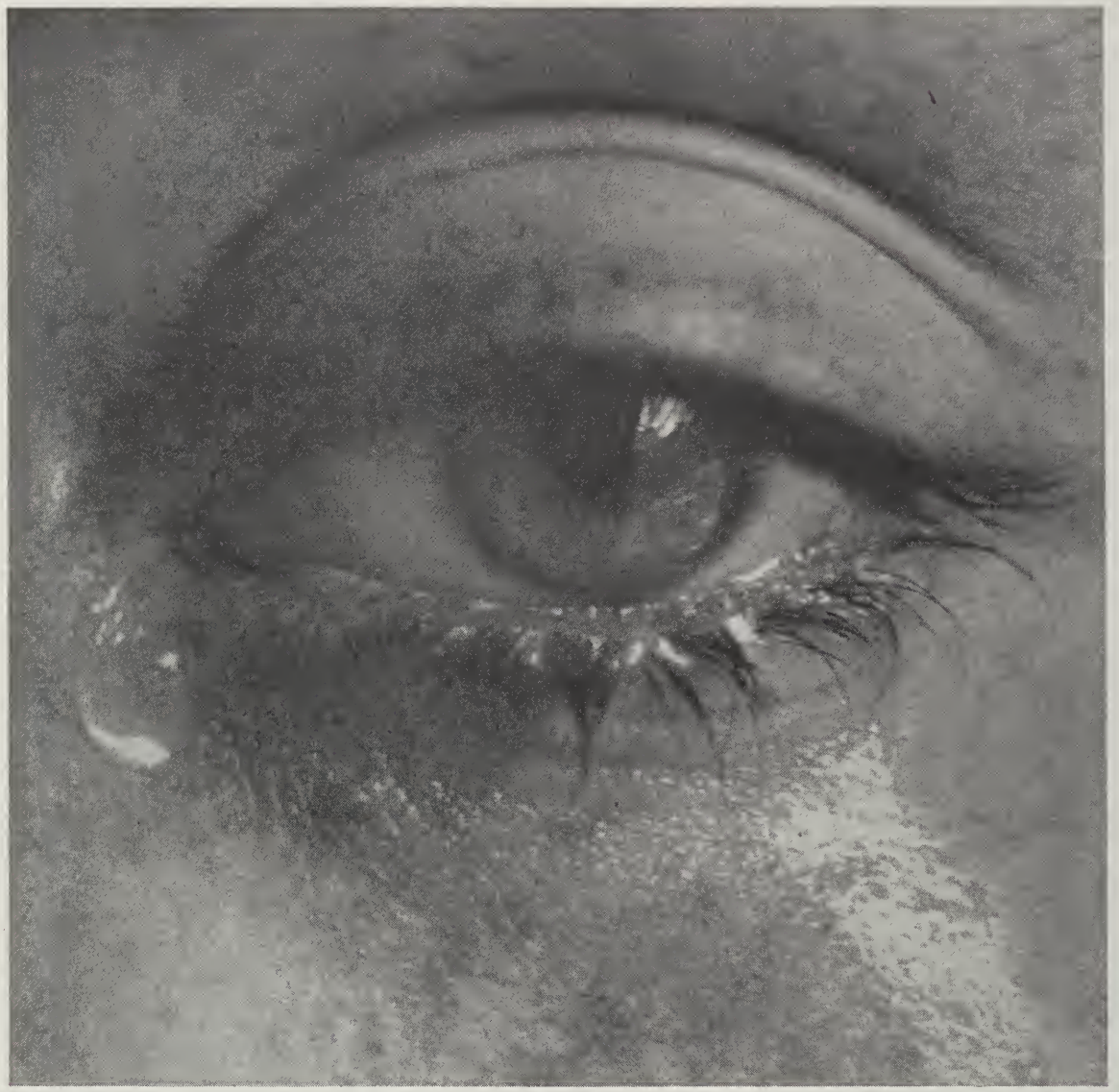
For complete details, consult latest Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Bloomfield, New Jersey.

*Schaefer, L. E.: Clin. Med. 8:1343, 1961.

S-963

A CASE FOR HALDRONE®

(paramethasone acetate, Lilly)



Haldrone is highly effective in suppressing the manifestations of HAY FEVER and pollen allergies, even when administered in low dosage. (Haldrone is approximately nine times as potent as hydrocortisone in ACTH suppression tests in man.[1]) With average dosage, only minimal changes occur in regard to sodium retention or potassium excretion. Haldrone is comparatively economical for your patients, too.

Lilly

Suggested daily dosage in hay fever:
Initial suppressive dose . . 4-8 mg.
Maintenance dose . . . . 2-4 mg.

Supplied in bottles of 30, 100, and 500 tablets.
1 mg., Yellow (scored)
2 mg., Orange (scored)

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana.

240032

1. Accumulated reports from thirty-six clinical investigators: Lilly Research Laboratories.

JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION
April, 1962, Vol. III, No. 4

ORIGINAL PAPERS

Current Surgical Technics for the Treatment of Deafness

MILES L. LEWIS, JR., M.D.
New Orleans, Louisiana

Otologic surgery is a fast-changing field. Many procedures that were widely used only two or three years ago have been discarded and replaced by more effective ones. The author discusses a number of technics in current use for the treatment of deafness.

Otologic surgery has developed rapidly and undergone many changes since Lempert[1] described the one stage fenestration operation for otosclerosis in 1939. Rosen's[2] pioneer work in stapes surgery and the work of Wullstein[3] and Zollner[4] in Germany in tympanoplasty all represent tremendous advancements in the theory and execution of temporal bone surgery for improvement of hearing. In fact, otologic surgery has undergone so many changes in the past few years that some procedures done only two or three years ago have been discarded and replaced by more effective ones. It is felt that a brief description of some of the technics currently used in the treatment of deafness may be of interest.

OTOSCLEROSIS

Otosclerosis produces a conductive deafness by ankylosis of the stapediovestibular joint. It is said to be the most common cause of deafness originating in early adult life; an estimated five million people in the United States alone are affected with otosclerosis.

The fenestration operation, as perfected by Lempert, effectively restored hearing in carefully selected patients with otosclerosis in over 80 per cent of those patients operated upon. However the fenestration operation had several disadvantages such as an inherent residual conductive deafness of approximately 20 decibels, perpetual periodic cavity care, and restriction of certain of the patient's activities.

The stapes mobilization operation did not have the disadvantages of the fenestration operation, but it could be accomplished in only 75 per cent of the patients operated on, and refixation of the mobilized stapes with return of hearing to the preoperative level was very common.

Stapedectomy (removal of the fixed stapes) and replacement of the stapes with a prosthesis is the procedure of choice in the surgical treatment of otosclerosis by most otologic surgeons today. Various technics have been devised for replacement of the stapes: the vein graft polyethylene strut technic of Shea,[5] the Gelfoam polyethylene strut technic of House,[6] the vein plug technic of Kos,[7] and the wire-fat graft technic of Schuknecht.[8] All give satisfactory results. I prefer the wire-fat graft technic for several reasons. First, there is more secure attachment of the prosthesis to the incus and little chance of

the prosthesis becoming displaced. Second, it is adaptable to all anatomical variations, and third, a strong durable seal of the oval window is achieved by this technic. Figures 1, 2 and 3 show the basic principles of the stapedectomy operation with replacement of the stapes by the wire-fat graft prosthesis.

This technic has resulted in the restoration of hearing to a normal level for conversation in over 90 per cent of the last 250 patients operated upon for deafness due to otosclerosis. Inner ear complications with additional loss of hearing have occurred in less than 2 per cent of this series. There have been no other complications from the procedure. Although this operation is relatively new, the regression of hearing to the preoperative level following successful surgery appears to be less than 2 per cent.

MYRINGOPLASTY

Closure of perforations of the tympanic membrane has been a topic of interest to otologists since the origin of the specialty. A small number of perforations can be closed by curettage or cauterization and patching with tissue paper or other membranes as an office procedure. Older perforations and those occurring in atrophic and avascular tympanic membranes must be closed surgically.



Figure 2

House[9] first introduced skin grafts for the closure of perforations. Some skin grafts were satisfactory, but many developed cysts or became atrophic and perforated again, often many months after surgery. Shea[10] and Tabb[11] have written of the use of vein as a tissue graft in myringoplasty,



Figure 1

and this is certainly the technic of choice for this condition. The vein forms a stroma for the migration of the epithelial layer of the remaining tympanic membrane, and a firm closure of the perforation in the tympanic membrane is thus affected. The epithelial layer of the graft following vein graft myringoplasty is devoid of epithelial appendages and there is no danger of cyst formation and subsequent perforation.

The vein graft myringoplasty technic may be adapted to many other middle ear problems. When there is a question of ossicular continuity and mobility or a question of existing middle ear

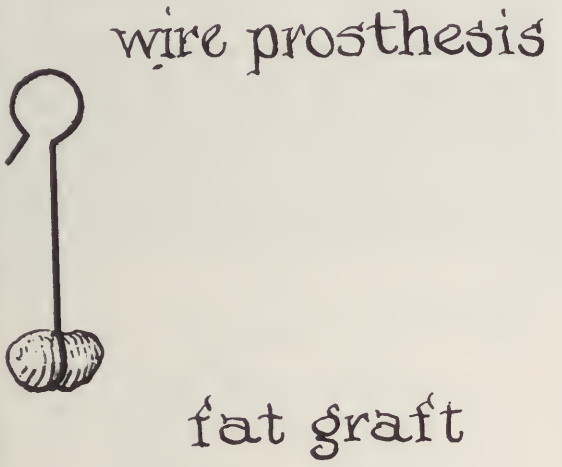


Figure 3

pathology the myringoplasty is combined with middle ear exploration by the stapedectomy incision and approach. By this means, polyps and small cholesteatomas confined to the middle ear and attic can be removed and ossicular defects corrected by prosthesis prior to the placement of the vein graft.

I feel it is desirable to place the vein graft on the under surface of the remaining tympanic mem-

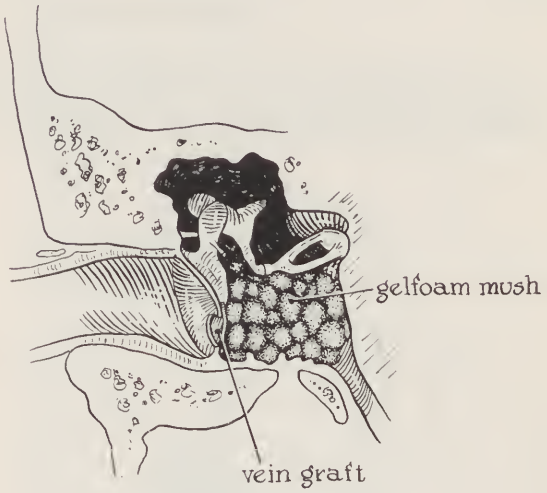


Figure 5

brane with the adventitial surface of the vein in apposition with the scarified mucosal surface of the remaining tympanic membrane. The vein graft is held in position by pledgets of Gelfoam-antibiotic solution "mush." The outer surface of the vein graft and tympanic membrane are covered with the same material and the ear canal packed with cotton balls. The outer packing is left in position for ten days and then removed. The middle ear becomes clear of the Gelfoam "mush" in three to four weeks and the middle ear can be safely inflated at that time. By this technic the progress of closure and condition of the graft can

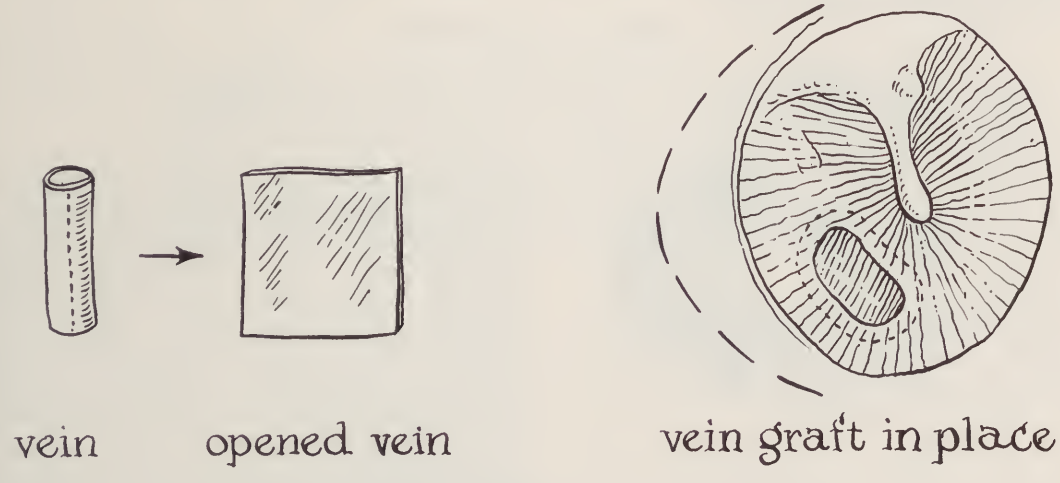


Figure 4

be observed by otoscopy. The technic of vein graft myringoplasty is illustrated in Figures 4 and 5.

TYMPANOPLASTY

Tympanoplasty is the term applied to surgery of the ear and mastoid which combines removal of disease of these structures with an attempt to

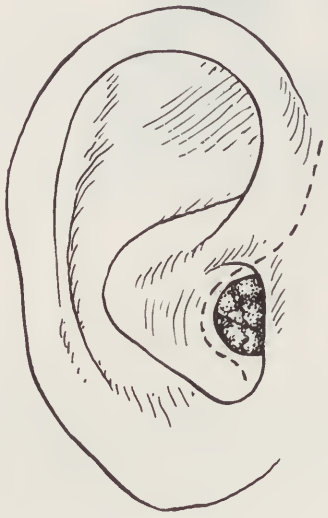


Figure 6

repair the sound-conducting mechanism, as contrasted with the radical mastoidectomy in which all middle ear structures are removed. Wullstein[3] is credited with the origin of the term, and although his classification of types of tympanoplasty is useful in understanding the principles of the conduction of sound, it is no longer necessary in describing procedures done today.

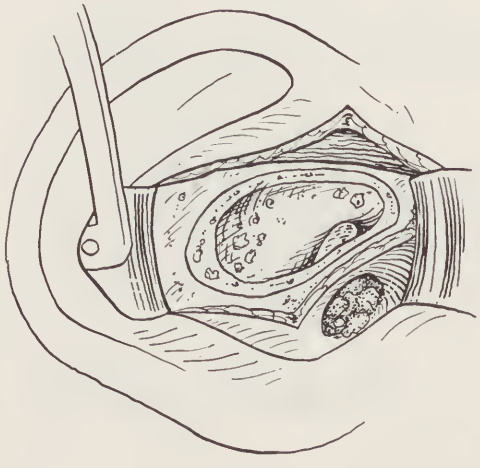


Figure 7

All who have had the experience of caring for mastoid cavities realize what a problem and annoyance they are to the patient. They, in effect, have to have perpetual ear care. They cannot engage in water sports and many of these patients never obtain dry ears, which is the principal reason that most of them wanted their ears operated on to begin with. By currently available tympanoplasty technics practically all chronic otitis media and mastoiditis patients can be successfully operated upon and the diseased tissue removed without the creation of a mastoid bowl. Each operation must be tailored to the pathology found; however the basic steps of this surgery can be outlined.

Most patients can be operated upon under local anesthesia. The infection should be under control and the infecting organism and suitable antibiotic known at the time of operation. The middle ear and attic are approached transmeatally by a laterally placed stapedectomy type incision and under visualization with the operating micro-

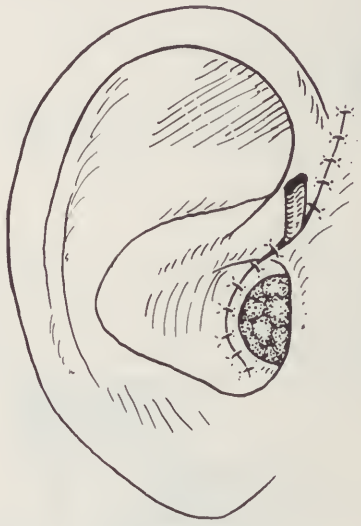


Figure 8

scope. All middle ear and attic pathology is removed, ossicular chain defects are repaired, and a vein graft myringoplasty performed. The medial external auditory canal is packed with Gelfoam pledgets in the usual manner. Following this, a routine endaural incision for exposure of the mastoid cortex is made. The mastoid is exenterated with cutting burrs leaving the posterior and superior bony ear canal intact. The lateral wall of the epitympanum may be removed by extending the bone removal anteriorly, and remaining attic disease removed. The incision is then closed by primary suture with a polyethylene tube drain

left in place for drainage and irrigation with antibiotic solution if needed.

There are a few patients with very acute infections, or with impending or actual intracranial spread of their disease in whom this technic should not be employed, but this operation can be done as a definitive, one-stage procedure in most patients. The closed tympanoplasty technic is briefly demonstrated in Figures 6, 7, and 8.

MUSCULOPLASTY

Patients who have unhealed and chronically draining mastoid or fenestration cavities can often be helped by the musculoplasty operation. Rambo[12] has described an anteriorly attached muscle pedicle graft used in primary closure of mastoid cavities and in obliteration of mastoid cavities. The primary closure technic is used in radical cavities in which improvement of hearing is not a consideration. In modified radical and fenestration cavities the muscle graft is used to fill the mastoid bowl leaving the ear canal and tympanic membrane exposed for the conduction of sound. ★★★

1539 Delachaise

REFERENCES

1. Lempert, J.: Improvement of Hearing in Cases of Otosclerosis: New One-Stage Surgical Technic, Arch. Otolaryng. 28:42, 1938.
2. Rosen, S.: Mobilization of the Stapes to Restore Hearing in Otosclerosis, New York J. Med. 53:2650, 1953.
3. Wullstein, H.: Theory and Practice of Tympanoplasty, Tr. Am. Laryng. Rhin. & Otol. Soc., 60:548, 1956.
4. Zollner, F.: The Principles of Plastic Surgery of the Sound-Conducting Apparatus, J. Laryng. & Otol. 69:637 (Oct.) 1955.
5. Shea, J. J., Jr.: Fenestration of the Oval Window, Ann. Otol. Rhin. & Laryng. 67:932, 1958.
6. House, H. P.: Polyethylene in Middle Ear Surgery, Arch. Otolaryng. 71:962, 1960.
7. Kos, C. M.: Vein Plug Stapedioplasty for Hearing Impairment Due to Otosclerosis, Ann. Otol. Rhin. & Laryng. 69:559 (June) 1960.
8. Schuknecht, H. F.: The Metal Prosthesis for Stapes Ankylosis, Arch. Otolaryng. 71:287, 1960.
9. House, H. P.: Surgical Repair of the Perforated Ear Drum, Ann. Otol. Rhin. & Laryng. 62:1072-1082 (Dec.) 1953.
10. Shea, J. J., Jr.: Vein Graft Closure of Ear Drum Perforations, Arch. Otolaryng. 72:445 (Oct.) 1960.
11. Tabb, H. G.: Closure of Perforations of the Tympanic Membrane by Vein Grafts, Laryngoscope 70:271 (March) 1960.
12. Rambo, J. H. T.: Musculoplasty, A New Operation for Suppurative Middle Ear Deafness, Tr. Am. Acad. Ophth. 62:166-177, 1958.

DOOMSDAY NOTE

A sun-powered portable transistor radio is being manufactured in Denmark and a 60-watt bulb will work it when the sun is not shining. They are now designing, no doubt, a portable powered by fall-out so that, when all about us is strontium 90, we may go to meet our Maker in a manner befitting the dignity of our age, rising on wings of dissonance, heralded by electric guitars, and doing the Twist.

Punch

The Management of Upper Gastrointestinal Tract Hemorrhage

N. EDWARD ROSSETT, M.D.
Memphis, Tennessee

Four hundred consecutive hospitalized patients with gross verified hematemesis, or melena, or both, with x-ray, gastroscopy, operation or necropsy confirmation of ulceration were treated by liberal transfusion, effective sedation with large doses of barbiturates and 24 hour gastric acid neutralization. There were six fatalities resulting in a death rate of less than 2 per cent.

Another 126 cases of upper gastrointestinal hemorrhage of other possible origins have been treated with the same regimen with only a single fatality.

To combat high medical mortality in their institutions, some surgeons have employed early operative intervention in selected cases of upper gastrointestinal tract hemorrhage with a resultant lowering of the death rate. The only conclusion which can be safely drawn is that early surgical intervention results in a lowered mortality rate when the medical therapy employed is inadequate. When a Meulengracht[2] regimen or a modification is employed, mortality rates are consistently more favorable, running as low as 4 per cent,[3] 3.6 per cent,[4] 2 per cent,[5] and 1.3 per cent.[6]

DETECTION OF BLEEDING

The problem of bleeding from the gastrointestinal tract presents itself very dramatically. If the patient is unconscious or in shock, measures to combat shock must be started immediately. Examination must of necessity be cursory at this time. Because the shock has been occasioned by the loss of whole blood, replacement of whole blood is the most efficacious means of combating it. Blood is, however, not always immediately available. While blood is drawn for cross-matching, blood and platelet count, NPN determination, and prothrombin time, an intravenous infusion of albumin, or if this is not available, 10 per cent glucose or 5 per cent glucose in normal saline is prepared. Plasma is used only as a last resort because of the risk of infectious hepatitis unless plasma is available which has been stored for six months at room temperature. The infusion can be started without removing the needle used for withdrawing the blood sample. Intravenous fluids are given at the rate of 125 to 250 cc. per hour. This permits the giving of 6,000 cc. of blood in 24 hours if required. The rate may be exceeded in the first few hours of severe shock. We attempt to avoid shock or to have the patient out of shock at the earliest possible moment. Shock, if continued, may produce irreversible changes in the kidney, liver, vascular tree, brain, and the gastrointestinal tract. With the infusion started, further examination of the patient can be conducted.

TREATMENT SCHEDULE

Briefly, the treatment schedule for bleeding consists of: (1) bed rest and quiet to include three days of no bleeding, (2) modified Muelengracht regimen of feeding every two hours, night neutralization being achieved by adding 0.9 gm. of calcium carbonate with 0.1 gm. of magnesium oxide to the 100 cc. of milk from 10 p.m. through 6 a.m., (3) increase of the magnesium oxide if necessary to prevent constipation or discontinuance of the magnesium oxide if diarrhea appears, (4) l-hyoscyamine sulphate (Levsin) 0.25 mg.

Read before the Section on Medicine, 93rd Annual Session, Mississippi State Medical Association. Biloxi, May 9-11, 1962.

given by hypodermic needle if vomiting is present, (5) gastrointestinal series within the first two days except in cases of shock or vomiting, (6) a change to 45 cc. of a mixture of aluminum hydroxide gel (4 parts of volume) and milk of magnesia (1 part of volume) (Aludrox) for bedtime and every two hours through the night, when bleeding has ceased.

BLEEDING ULCER DIET

8 a.m. Breakfast	0.1 gm. Ascorbic acid
	½ cup Strained cereal
	2 oz. Cream
	1 slice Bread, white
	1 pat Butter
10 a.m.	Eggnog, 2 crackers, 1 butter
12 Noon Lunch	¼ cup Minced meat
	½ cup Potatoes, mashed
	¼ cup Vegetable puree
	¼ cup Fruit puree
	1 slice Bread, white
	1 pat Butter
	½ pint Milk
2 p.m.	Eggnog, 2 crackers, 1 butter
4 p.m.	½ pint Chocolate milk
6 p.m. Supper	¼ cup Cottage cheese or minced meat
	1 slice Bread, white
	1 pat Butter
	½ cup Pudding
	1 oz. Cream
	½ pint Milk
8 p.m.	Eggnog, 2 crackers, 1 butter
Eggnog Recipe:	⅔ cup Milk
	1 Egg
	1 tsp. Sugar
10 p.m.	Milk, 100 cc., Calcium Carbonate 0.9 gm., magnesium oxide, 0.1 gm., q2h. through 6 a.m.

BLEEDING CEASED DIET

8 a.m. through 8 p.m.	Same dietary
10 p.m.	Mixture of aluminum hydroxide gel and milk of magnesia (4 to 1 parts by volume) 45 cc. q2h. through 6 a.m. If patient is intolerant of this antacid, use four 0.5 gm. tablets of dihydroxy aluminum aminoacetate (Alglyn).

Patient may have 150 cc. of water between feedings.

The oral intake after vomiting must be watched carefully. Cracked ice and ice water represent water ingestion and may initiate vomiting. A damp, iced cloth may be used to clean the mouth. One hour after vomiting has ceased, a few ounces of sweet milk should be offered. If this is tolerated, about 30 minutes later 100 cc. of milk with 0.9 gm. of calcium carbonate plus 0.1 gm. magnesium oxide may be offered. If no vomiting occurs in one hour, start the "Bleeding Ulcer Diet."

Sodium amytal alone has been used for sedation. It is given orally if the patient is not vomiting and intramuscularly if the oral route is not feasible. The dosage is 0.2 gm. every six hours, if the patient is awake. Morphine is specifically contraindicated because it produces vagal stimulation which results in gastric hypersecretion and hypermotility.

The "Bleeding Ceased" regimen differs only in the use of a mixture of aluminum hydroxide gel and milk of magnesia as the antacid. It is begun when reasonable evidence of cessation of bleeding occurs or definite tan stool appears. It is maintained for only five days and then the uncomplicated ulcer regimen is begun. The average is a total of ten days of bed rest with "Bleeding Diet" and eleven days of uncomplicated regimen and ambulation.

In the period between Oct. 1, 1946, and March 1, 1961, 400 episodes of gastrointestinal hemorrhage manifested by verified gross hematemesis or melena or both at Kennedy Veterans Administration, Methodist, and St. Joseph Hospitals in Memphis were treated by this regimen. Niche formation or deformity of the duodenal bulb, or both, were found, by radiograph or gastroscope, or at necropsy or operation in all cases except in two patients who died and were not autopsied because consent could not be secured. During this period there were 4,139 hospital admissions with x-ray verified peptic ulcer.

INCLUSION CRITERIA

The criteria for inclusion in this series were hospital verified gross hematemesis with concomitant or subsequent tarry stools or tarry stools alone and peptic ulceration confirmed by x-ray, gastroscopy, necropsy, or operation in both groups. The usual criterion of verification was not met in two of the patients who died. They must, however, be included for proper evaluation of our series in order not to overlook a possible death from bleeding ulcer.

Another 126 cases of gastrointestinal hemorrhage of other possible origin have been treated with this regimen with a single fatality. Probably 36 of these cases were due to peptic ulceration but radiographic or gastroscopic confirmation could not be secured. They were not included in this series but could only alter the statistics favorably for all survived. Forty-six cases were due to

various other determined causes ranging from esophageal varices to bleeding in an intussuscepted Meckel's diverticulum. In 44 cases a cause for bleeding was not found. In this group only one patient died, in cholemia, five days after bleeding from esophageal varices. Necropsy confirmed Laennec's cirrhosis, varices, and absence of blood in the gastrointestinal tract.

'BLEEDER' REGIMEN

The "bleeder" regimen has been so greatly modified that it is perhaps a misnomer to call it a Meulengracht diet. The name has been retained to indicate our admiration of a theme that permits acid neutralization and adequate nutrition at the earliest possible moment (when the patient has ceased vomiting). The "bleeder" is given the poorer antacid mixture of milk, calcium carbonate, and magnesium oxide instead of aluminum hydroxide gel with milk of magnesia because the presence of blood in the stomach permits the blood proteins to combine with the aluminum to form a coagulum which is insoluble in any of the intestinal juices and may produce obstruction, perforation of the transverse colon, and death. It would be well to list at this point the specific differences between this and Meulengracht's bleeding ulcer diet and regimen. They are:

1. The patient is fed every two instead of three hours.
2. The patient is fed around the clock.
3. The diet is specifically high protein.
4. The diet is mechanically soft.
5. Antacids are used whether pain is present or not.
6. An anticholinergic drug is given to diminish acid secretion whether pain is present or not.
7. Bed rest is imposed.
8. Barbiturates are used for heavy sedation. Morphine is specifically avoided because of its vagal effect.
9. Blood transfusion is employed freely.
10. Iron is not used because of frequent bowel disturbance and production of a black stool which makes it difficult to tell if bleeding resumes.

We have used 0.25 mg. of l-hyoscyamine sulphate every four hours because this decreases the amount of antacid necessary to secure neutralization. Our free use of transfusion is now concurred in by Meulengracht in his latest communication.[2]

When to give or withhold blood has always been a problem. There are many recognizable signs that can serve as guides when used in conjunction with laboratory results. The conjunctivae, the fingernails, the skin, and the tongue (particularly the last in the Negro) provide, by their pallor, an excellent index of how much of the vascular tree is collapsed. We have used the rough maxim of "give at an estimated hydrated PCV of 30 and stop at PCV of 40 per cent." A count of 4,000,000 red blood cells with empty peripheral vessels may mean dehydration and a count of 2,500,000 when rehydration occurs. Only seven cases had emergency surgical intervention. There was one death after surgery.

The admission count may have little prognostic significance if bleeding has already ceased. Resumption should not occur under any adequate medical regimen. Some fatalities will have already occurred prior to admission. As greater reliance is placed on liberal transfusions, falls in blood count due to hydration will not occur. Only ulceration verified by objective means should be included. The variable figure of probable ulcers will usually favorably influence the mortality rate but make an evaluation of therapy more difficult and should, therefore, be excluded from the statistical study. Any fatality due to gastrointestinal hemorrhage, if not objectively verified as not caused by peptic ulceration, must be included. The statistical probability favors peptic ulceration.

ULCER INCIDENCE BY TYPE

There are twenty gastric and four anastomotic ulcers in this series; the rest are cases of duodenal ulcers. The gastric ulcer incidence of 5 per cent is the same in our entire peptic ulcer series. The prognosis in gastric ulcer with bleeding is poorer than in duodenal ulcer with bleeding.

This regimen depends upon ready availability of blood. It assumes a blood bank of some sort. There must be times when blood is actually unavailable or relatively so because of such factors as rare type. The presence of a competent surgeon may rightly prompt earlier intervention under such conditions.

We have chosen the packed cell volume as the measure of severity of bleeding. It is possible to have a PCV of 50 and hemoglobin of 8 or 9 gm. in slow bleeding without any danger to the patient. It is rapid exsanguination which carries the poor prognosis. The PCV in conjunction with physical signs provides ready information about severity of bleeding.

The achievement of consistently low mortality rates is possible only when round-the-clock vigilance is exercised by all the members of the team entrusted with the responsibility of the gastro-

intestinal bleeder including the internist, surgeon, nurse, dietitian and ward attendant.

Operation is seriously considered when obstruction is present (12 patients in this series, however, recovered in spite of obstruction with delayed surgical intervention weeks or months after all bleeding had ceased), bleeding has resumed after once stopping (nine patients had resumption of bleeding under the described regimen), diabetes is a complication, or gastric ulceration is present. Because operation after 48 hours carries a high surgical mortality rate, a decision as to type of therapy to be employed must be arrived at within this period.

Full responsibility must be assumed by the internist for a death if the joint decision is medical therapy and by the surgeon if operation is the decision. Only two of the six patients who died on the medical regimen could possibly have been subjected to surgery.

USE OF SEDATION

Sedation must be adequate both by barbiturates and by reassurance. If carried to anesthetic levels, sedation alone may stop bleeding. In this case series, the column of blood was found below the ligament of Treitz in all of the patients who were operated on. Thomas A. Warthin, who observed 312 cases of massive bleeding, 33 of which he operated on, noted in a personal communication to the author on May 2, 1951, that all gastric ulcers were still bleeding but only three out of sixteen duodenal ulcers were actively bleeding at the time of operation. He also observed that the column of blood was well below the ligament of Treitz in all patients in whom no source for hemorrhage had been determined by x-ray or operation.

In early 1952 we substituted levorotary hyosycamine sulphate for tincture of belladonna used previously. This eliminates tincture strength variability and the CNS stimulation of the dextrorotary hyoscyamine found in the tincture and atropine.

The uncomplicated ulcer regimen includes a diet which is quite liberal, omitting agents which produce mechanical, chemical, secretagogue, or thermal injury. It avoids overdistention to minimize hypersecretion and peristalsis. It provides all of the essential food elements necessary for maximum nutrition. It furnishes 100 to 150 gm. of protein daily primarily because protein alone neutralizes gastric acidity but also to satisfy nutritional protein needs and possible deficiency present as the result of previous dietary limitation. When the uncomplicated ulcer regimen is begun (and only then), gastric emptyings are employed two hours after feeding using a 36F Ewald stomach tube with gravity drainage with the patient in the prone Trendelenburg position. This permits raising or lowering antacids and anticholinergics to produce verified "free achlorhydria," a pH of 3.0 or more. A more detailed account of this procedure has been published.[8]

AMBULATORY PROGRAM

When the ambulatory regimen is begun, the l-hyoscyamine sulphate dosage is changed to 0.25 mg. 30 minutes before meals and 0.5 mg. at bedtime. I have, as yet, not encountered toxic psychosis when the drug was used as directed. There has not been a single instance of recurrence of bleeding after the patient had progressed to the regimen used for uncomplicated peptic ulcer.

The mixture of aluminum hydroxide gel and milk of magnesium is a longer acting antacid than calcium carbonate and magnesium oxide in milk. It should not, however, be used when blood or food protein is present in the stomach because of the formation of a coagulum which causes constipation, removes buffer, and which may produce obstruction.[9]

Dihydroxy aluminum aminoacetate in 2.0 gm. doses appears to be as efficient an antacid as the liquid aluminum hydroxide gel, milk of magnesia mixture in 30 cc. doses. It was used initially when patients were intolerant of the mixture. It may be used to replace the mixture in the ambulatory patient because of the convenience of the tablet antacid. The antacid mixtures in the prescribed proportions rarely produce changes in bowel habit. It is desirable, when profuse internal bleeding causes diarrhea, to omit the magnesium oxide. A comprehensive discussion of these antacids has already been published.[10, 11] ★★★

1639 Madison Avenue

REFERENCES

1. Stewart, John D.; Massover, Alfred J.; Potter, William H.; and Schaer, Sidney M.: Massive Hemorrhage from Gastroduodenal Ulcer, Surgery 24:239, 1948.
2. Meulengracht, E.: Fifteen Years' Experience With Free Feeding of Patients With Bleeding Peptic Ulcer, Arch. Int. Med. 80:697, 1947.
3. Lewison, Edward F.: Bleeding Peptic Ulcer, Surg. Gynec. & Obst. 90:1, 1950.
4. Warthin, Thomas A.; Warren, Richard; and Wissing, Egon G.: Combined Medical and Surgical Management of Upper Gastrointestinal Hemorrhage, New England J. Med. 241:473, 1949.

5. Eads, John T.: Massive Gastrointestinal Hemorrhage, J.A.M.A. 131:11, 1946.
6. Bowers, Ralph F., and Rossett, N. E.: Bleeding Peptic Ulcer: Favorable Results by Conservative Treatment, Ann. Surg. 132:690, 1950.
7. Warthin, Thomas A.: Personal Communication to the Author.
8. Rossett, N. E.; Knox, F. H., Jr.; and Stephenson, S. L., Jr.: Peptic Ulcer: Medical Cure by Efficient Gastric Acid Neutralization, Ann. Int. Med. 36:98, 1952.
9. Havens, W. P.: Intestinal Obstruction Caused by a Colloidal Aluminum Hydroxide, J.A.M.A. 113:1564, 1939.
10. Rossett, N. E.: Antacids in Peptic Ulcer Therapy, Memphis M.J. 23:84, 1948.
11. Rossett, N. E., and Rice, Marion L.: An in Vitro Evaluation of the Efficacy of the More Frequently Used Antacids With Particular Attention to Tablets, Gastroenterology 26:490, 1954.

TEENAGE SMOKERS

A new study of school children's smoking habits in the United States, made by the Department of Epidemiology at Harvard's School of Public Health, revealed that 7 per cent of seventh grade boys and 1 per cent of the girls are regular smokers. By the time youngsters reach the 12th grade, 46 per cent of the boys and 55 per cent of the girls have firmly acquired the habit. Investigators learned that children's experiments with smoking actually start before the seventh grade (boys smoke more heavily than girls in every early grade). Experts' accounting for the earlier smoking trend: More permissive attitudes on the part of parents.

One result expected from the study is renewed pressure upon the U. S. Public Health Service and the U. S. Office of Education to launch an educational program about smoking, starting in the fifth and sixth grades and continuing up through high school.

Evaluation and Disposition of Pain Problems Secondary to Cancer

FORREST T. TUTOR, M.D., and JULIAN R. YOUMANS, M.D.
Jackson, Mississippi

Severe, persistent pain from any source is of major concern to both patient and physician. The authors point out that pain is a problem in almost every cancer case. They recommend that neurosurgical procedures should be used for relief in patients who have malignant diseases but who are expected to live more than two months. They discuss procedures, mortality rates, and possible disabling effects.

IN ALMOST EVERY CASE of cancer, a problem of pain arises. The questions of when to start narcotics, what narcotics to start with, what narcotics to use as the disease progresses, and when to stop depending on narcotics and consider a procedure for interruption of pain pathways, are questions that each of us must answer. These questions must be answered with the patient's well-being and comfort always uppermost in our consideration. We must realize, as Weir Mitchell did in 1872 with his classic observations on pain problems, "the influence which long continued and unendurable pain may have upon body and mind."[1]

PAIN PERCEPTION

The perception of pain is normally very important to us in a protective capacity, serving as a valuable warning of bodily injury. However, in cancer the onset of pain is usually not early enough to be of any help to the patient or doctor in detecting the disease in the early operable stage. Therefore, in malignant disease, pain serves no useful function; in fact, pain too often is the patient's main problem. Total disability in the form of drug addiction, psychic deterioration, and even suicide may result from the pain problem.

In the consideration of what to do and when to do it, all would agree that drugs should be the first consideration. Aspirin and one of the tranquilizers would seem to be the logical starting medication, but this will usually give the patient no relief, or relief for only a short time. Codeine and tranquilizers should then be tried. When the patient ceases to be relieved by codeine and tranquilizers, it becomes very important to decide whether to go ahead with stronger drugs or to make plans for a neurosurgical procedure to interrupt the pain pathways to the area of pain.

Drs. White and Sweet, in their book, *Pain—Its Mechanisms and Neurosurgical Control,* feel that a point of prime importance at this time is the life expectancy of the patient. They feel that if the life expectancy is two months or less there is little doubt that the best course is to control the patient's pain with opiates in doses of sufficient magnitude to keep the patient comfortable.[2] However, if the patient's life expectancy is more than two months, it is quite unlikely that the patient can be kept comfortable with opiates without developing an addiction to the drug that will lead to psychic deterioration and dependency. A patient who is in a state of addiction to opiates stands very little chance of being a comfortably adjusted person, even with the most anatomically successful pain relieving surgery.

NEED FOR SURGERY

After it is decided that the patient's life expectancy is probably more than two months, and drugs are not keeping the patient comfortable, he must be approached with a discussion of his need for

From the Department of Neurosurgery, University of Mississippi School of Medicine.

pain relieving surgery. The patient will often be reluctant to have the surgery because of lack of knowledge of what the operation entails. He should be told that the mortality rate from the surgery is very low. The patient often assumes that his limbs are to be paralyzed if he is not specifically told that no weakness is expected. He should be told that probably the only change he will notice will be loss of perception of pain and temperature in the area of the body previously involved in pain.

SPINOTHALAMIC TRACTOTOMY

Spinothalamic tractotomy or cordotomy is by far the most commonly employed procedure for relief of pain secondary to malignant disease. The perception of pain enters through the sensory root, crosses to the opposite side of the cord and ascends to the thalamus by way of the lateral spinothalamic tract. This tract can be interrupted anywhere along its course with relief of pain on the opposite side of the body below the interruption. For pain below the xyphoid level, the interruption is made at the level of the second or third thoracic segment of the cord. For pain that extends higher than the xyphoid, a higher interruption is necessary. The usual absence of the posterior root of the first cervical nerve and the relatively small root of the second cervical nerve, makes this spot ideal for interruption of the spinothalamic tract for pain higher than the xyphoid level. The decussation of the pyramidal tract is completed in the first cervical segment, therefore incision into the anterior quadrant at the level of the second cervical rootlet should not injure the pyramidal tract. There should be no permanent motor loss with a cordotomy at any level, and this should be told the patient.

In many cases of unilateral pelvic pain, a unilateral cordotomy is sometimes done only to have the patient complain of pelvic pain on the opposite side in the postoperative period. Apparently, the severity of the pain on the one side overshadows the pain on the less severe side. This situation often necessitates reoperation with interruption of the tract on the opposite side.

Pain in the face produced by carcinoma or the benign condition of tic douloureux can be relieved by surgical division of the trigeminal nerve. Pain in the neck can be relieved by rhizotomy of the posterior cervical nerve roots. Pain in the region of the tonsil or ear can be handled by section of the glossopharyngeal nerve or by medullary tractotomy. It may also be necessary to divide the upper cervical nerve roots.

In cases of severe intractable pain in terminal cases, prefrontal lobotomy may be utilized. If this procedure is radical enough to produce the desired effect, some change of the personality must be expected, but this is not usually a great problem. The pain of calcific pancreatitis will benefit from splanchnic section. Raynaud's disease pain and the true causalgia pain are relieved by sympathectomy.

SUMMARY

Patients with severe pain problems from malignant diseases who are expected to live more than two months should be given the benefit of neurosurgical procedures for relief of this pain. The mortality from these procedures is low. The psychic deterioration and dependency of drug addiction can be prevented by proper timing of the neurosurgical procedure. No disabling neurological deficit is to be expected from the surgical procedures. ★★★

2500 North State Street

REFERENCES

1. Mitchell, S. W.: Injuries of Nerves and Their Consequences, Philadelphia, J. B. Lippincott Company, 1872.
2. White, James C., and Sweet, William H.: Pain—Its Mechanism and Neurosurgical Control, Springfield, Ill., Charles C Thomas, 1955.

DIAGNOSIS OF AN UMPIRE

A baseball umpire suffering from constant headaches consulted a doctor and was given a complete work-up.

The doctor finally announced his diagnosis, "You need glasses."

Immediately the umpire jumped to his feet, jerked his thumb and shouted: "You're out of the game, wise-guy, and what's more, it'll cost you a hundred bucks."

Clinicopathological Conference XXVII

Conducted by the Department of Pathology
University of Mississippi School of Medicine

CPC XXVII concerns an 18-month-old girl admitted with an enlarged heart, edema of the face and legs, and an enlarged abdomen. Discussers are Drs. David G. Watson, Robert D. Sloan, Catherine G. Goetz, and Blair E. Batson. Dr. Joel G. Brunson gives the autopsy report.

Dr. David G. Watson: "The protocol on this child shows that the child was admitted here at the age of 18 months with an enlarged heart, edema of the face and legs, and an enlarged abdomen. She was the product of a premature gestation (7 months) with pre-eclampsia and birth weight was 2 lb. 8 oz. A twin died at birth. I was a little intrigued that she was apparently discharged at 2 weeks of age when she weighed only 2½ lb. at birth. Either she went home at a very small size or else gained rather remarkably.

ADMISSION DATA

"On the admission in May 1960, it was said that her ill health apparently had started about three months previously when she developed a a fever and bad cough. The diagnosis made was whooping cough and the treatment is apparently not known. This episode could possibly represent something else, such as bacterial lower respiratory infection, viral disease, or even have been some heart disease with congestive failure and cough, although without specific treatment it is unlikely that this would resolve by itself.

"Then apparently she was relatively asymptomatic until two or three weeks prior to admission when she did develop swelling of the face and an enlarging abdomen. One week prior to admission she was again febrile and medical aid was sought and she was given some medications including one for anemia, but she did not improve and had dyspnea and coughing. She was found to have an enlarged heart and was referred here to UMC. Her history shows no immunizations. Other information was that her diet was entirely one of evaporated milk formula. In other words she was not receiving any good source of iron.

"Physical examination revealed a poorly developed female in marked respiratory distress, who was irritable and pale. She had a temperature of 101. Her pulse was elevated to 168 and the respiratory rate to 50 per minute. The blood pressure was 85 by the Flush method which may or may not be systolic or mean pressure, but it is probably not very remarkable. The ears, nose, and throat only showed pale mucous membranes.

"There were a number of findings related to the heart. There was moderate venous distention. The heart was thought to be enlarged to percussion. I would like to throw in a little note of caution in that I personally find that it is difficult in children as opposed to adults to get a very good correlation between the percussion of the heart size and what appears on the x-ray. I will be interested in whether there is correlation in this case with the x-ray, but as a general rule there is often a very wide discrepancy. There was a gallop rhythm and no murmurs were heard at the time of admission, although later on there was one.

FINDINGS ON EXAMINATION

"There were rales in both lungs and the abdomen was protuberant. The liver was palpable 5 cm. below the right costal margin; it should not be felt more than about 2½ cm. below the right costal margin at this age. The spleen was not palpable and there were no physical signs of ascites. Perhaps the enlarged abdomen related to the enlarged liver. There were good pulsations in the extremities with some edema, pale nail beds, and poor muscle tone with little subcutaneous tissue.

"Up to now we know that this child is pale and apparently anemic. She is poorly nourished, and

she has several findings that indicate congestive heart failure. She has an enlarged liver, dyspnea with increased rate, a gallop rhythm, and some venous distention, and edema. Her laboratory results showed the low hemoglobin of 4.9 gm. per cent with hematocrit 20 per cent. The white blood count and differential as given were normal. Sedimentation rate was 10 mm/hr. Sickle cell prep was negative. Her smear showed hypochromia which would go along with the other values given. Her mean corpuscular hemoglobin was 20, the mean corpuscular volume was 81, and the mean corpuscular hemoglobin concentration was 24½. This would all go along with iron deficiency anemia. Urinalysis and other routine tests were fairly noncontributory.

RESULTS OF TESTS

"Some tests done to determine the possibility of rheumatic fever, C-reactive protein and ASO titer, were not helpful. Serum glutamic-oxalacetic transaminase, recorded as 92 units, was elevated. This could relate to a number of things that could lead to damage in the heart or liver including that related to congestive failure. She was given a transfusion which elevated her hemoglobin to 10.4 gm. per cent. The chest films will be shown later.

"The EKG was reported here as showing sinus tachycardia and later some right ventricular hypertrophy. On going over the EKG's on file, they did not show any hypertrophy on admission, but one week later there was some right hypertrophy and then later on there was biventricular hypertrophy. At no time were there any particular gross changes in the ST segments or T waves. There was at one time a nodal rhythm, but the significance of this is probably not very great.

"In the hospital she was treated with moist oxygen, digitalization, transfusions, and antibiotics. Thoracentesis obtained only 4-5 cc. of clear fluid. Later a grade II medium-pitched murmur near the left sternal border was heard. This could be an innocent murmur. I am not sure whether this was before or after she had blood given to her, but it might also be related to anemia. It might be a number of other things which we can mention later on, but it is very possible that it is not too significant. It does not sound typical of a mitral insufficiency murmur which we can get with a number of conditions to be considered. That would be more likely to give you a more high pitched murmur around the apex, transmitted to the axillae.

She apparently was a difficult patient to treat, but did improve and was sent home after a month. Then she was followed in the outpatient clinic apparently doing very well. I am sure that we will find out from Dr. Sloan how her x-rays showed the changes in her heart at this time. She remained on digitalis. Apparently the anemia did not become a problem because when she was again admitted she did not have anemia.

"She was again admitted when she was two years of age and was again rather suddenly ill. Apparently this followed the development of a cough and fever with temperature up to 103. Again there was a rapid respiratory rate with retractions, rales in the lungs, tachycardia with a gallop rhythm again and her liver was palpable 6-7 cm. below the right costal margin. There was no palpable spleen and her hemoglobin at this time was 13 gm. per cent. She at this time did have a white blood count of 32,400 with 49 per cent lymphocytes. Again chest x-ray showed the enlarged heart. Then she became worse and had a convulsion and died. I wonder if you might show the x-rays now."

RADIOGRAPHS

Dr. Robert D. Sloan: "The patient had repeated radiographs of the chest during the period she was followed in the hospital and clinic. The first film, taken at the time of admission to the hospital, reveals the cardiac silhouette is considerably enlarged with a nonspecific contour. There is parenchymal mottling extending out into both lungs, the majority of which would be perfectly compatible with congestive changes. An air bronchogram behind the heart showed a pattern suggesting pathology within the left lower lobe. Whether this represents simple compression of the lobe as can be produced by a considerably enlarged heart in a child or whether there is some other parenchymal pathology cannot be stated with assurance.

"This same basic pattern persisted for a period of roughly two months, following which the radiologic pattern improved. The probable compression changes in the left lower lobe disappeared, and the pulmonary congestive changes cleared to a considerable degree. The heart decreased somewhat in size, but always remained abnormally large. The final films were taken two days before death. The congestive changes are really not as prominent as they were on earlier films nor is the heart as large as it was on the first admission. There is some parenchymal mottling in the right

lung, the pattern suggesting a pneumonitis of some type."

DISCUSSER'S COMMENTS

Dr. Watson: "There are certain aspects of the diagnosis that were fairly clear certainly on the original admission. She had all the findings of iron deficiency anemia and originally and terminally she had congestive heart failure. It also appeared that terminally she had pneumonia, the bacteriology or other nature of which is not obvious, but she did have a high white blood count with an interesting number of lymphocytes. It is even possible that this might have been pertussis instead of her original illness, although the description of her onset and coughing is not very helpful. I think I had better confine myself to saying that terminally she did have some pneumonia.

"The big question is why she had an enlarged heart and failure. This is something that has certainly interested me quite a bit. We have had a large number of infants in this approximate age group with a relatively similar picture. About two years ago I went through the files of this hospital looking for children who had enlarged hearts and heart failure without congenital or rheumatic heart disease or any other relatively specific clinical diagnosis. There were 34 such patients and they were very much like this little girl in many ways.

DIFFERENTIAL DIAGNOSIS

There are certain diagnoses that we can put into a group of primary endomyocardial disease, and there are certain things one should rule out first, including congenital heart disease. I would not think this is too likely here. She was not cyanotic so we can pretty well rule out those forms. Most commoner acyanotic forms produce fairly characteristic murmurs. I would think that this was an acquired disease. Rheumatic fever is extremely unusual under the age of three years and we don't have anything to specifically suggest that diagnosis. Apart from myocardial or endocardial disease, she could have had pericarditis but her EKG did not help with that and there is no other particular suggestion of this. So I think I will confine myself to considering the diseases involving the endocardium or myocardium.

"Now in this age group the two most common disorders are endocardial fibroelastosis and myocarditis. Endocardial fibroelastosis of the primary variety is relatively poorly understood as to etiology, but it is certainly not rare. It is written in the text as being most common under the age of six months but many cases occur after this age, and this is certainly not against the diagnosis. Clinically the children become either suddenly or gradually ill. They usually develop an enlarged heart with failure and the EKG usually shows left ventricular hypertrophy with a form of strain pattern. This is not really what this child had but there certainly are variations. Her course is not out of keeping with this disease.

VARIETIES OF MYOCARDITIS

"There are many varieties of myocarditis. There is toxic myocarditis—the best known form is diphtheria—but this can occur with a number of other toxic conditions including pneumococcal and other bacterial infections. There are some viral forms of myocarditis recently very well described involving babies and infants. The enteroviruses (ECHO and Coxsackie) have been isolated in such cases, but it is also known that in other viral diseases, such as poliomyelitis, measles, infectious hepatitis, and infectious mononucleosis, changes at portmortem have been found in the myocardium and these have sometimes been associated with clinical disease. Also, fungi like monilia can involve the myocardium as can various protozoa including toxoplasmosis and trichinosis. There are certain forms of hypersensitivity. More recently one of the better described drugs that can produce this is Kynex. Clinically, one can rule out certain things. For instance we do not feel that she had diphtheria.

"Now there are some other much less common diseases that can produce an enlarged heart and failure. There is glycogen storage disease. It usually involves other muscles if it involves the heart, most commonly the tongue, and this apparently did not occur in this girl. There are nutritional myocardial disturbances of which the most common is beriberi, and although she was poorly nourished I wouldn't think that her clinical course is compatible with this. There is a familial form of cardiomegaly, which can produce failure. Her family history was apparently negative. Other rare possibilities include amyloidosis, coronary calcinosis, and medial necrosis of the coronary arteries.

"I think the two chief things that I would consider involving her heart would be endocardial fibroelastosis and myocarditis. Both of these can produce a picture just like this. There is one thing that is a little bothersome about her, and this is that in the cases we reviewed the change in heart size was by far the best criterion of prognosis. In those whose hearts continued to diminish in size after the original reduction related to control of

failure, there weren't any deaths. Those whose hearts continued to enlarge, despite intensive treatment, all died. Of the ones whose heart sizes remained relatively stationary we had a 50 per cent mortality rate despite treatment. The only treatment I recommend is treatment of the congestive failure and then indefinite maintenance on digitalis until the child is clinically well and the x-ray and EKG are approaching normal.

"Considering the babies that have been autopsied here and also information from other centers on the two conditions, endocardial fibroelastosis is much more common. Although anything can happen on a CPC, I will stick with the statistics and suggest that this baby has a thickened endocardium. Even though the EKG suggests trouble in both ventricles, I would suggest that we will find changes mostly on the left side of the heart. My second choice would be myocarditis. Lastly, the terminal event clinically and radiologically seems related to pneumonia as an added insult. One big possibility associated here might be a bacterial endocarditis, although there isn't any information that would really suggest this."

PATHOLOGIST'S REPORT

Dr. Joel G. Brunson: "This child does indeed have fibroelastosis. The heart was moderately enlarged. The left ventricular wall was quite thick, and the endocardium had a distinctly white, pale appearance (Figure 1). There was also some degree of thickening of the right ventricular endocardium. The papillary muscles were also quite thick and the chordae tendineae of the mitral valve were thickened and appeared to be shortened. As Dr. Watson has suggested, there was involvement of both ventricles, but the degree was more striking on the left. Closer inspection of the mitral valve showed that the leaflets were thickened, opacified, and had rolled edges (Figure 2). This change, together with the short, thick chordae tendineae, is evidence of functional impairment, and probably indicative of a moderately severe insufficiency, with a minor degree of stenosis. These changes could certainly account for the murmur which was heard.



Figure 1



Figure 2

"The lungs were grossly not very exciting; there were some nodules which turned out to be bronchopneumonia, but this was not extensive. There was no pleural fluid and there was very little peritoneal fluid. The remainder of the gross examination was not revealing except for the liver which was slightly enlarged and showed mild congestion. Microscopically, the only feature of note was a section from the myocardium and this showed a remarkable thickening of the endocardium composed of elastic and collagen tissue (Figure 3). By special stains it appears that there is an almost equal mixture of those two components. So this child has subendocardial sclerosis or fibroelastosis and I would wonder where Dr. Watson classifies this disease, i.e., congenital or otherwise?"

CLASSIFICATION OF DISEASE

Dr. Watson: "I honestly don't know where to classify it. It isn't generally put in a congenital category. There are familial instances, but some of the more recent investigators suggest that real-

ly the basic problem is in the myocardium rather than the endocardium. Although the thickened endocardium would interfere with the heart action and there are angiographic studies which show that it doesn't empty well, it doesn't seem to be thickened or stiff enough to by itself account

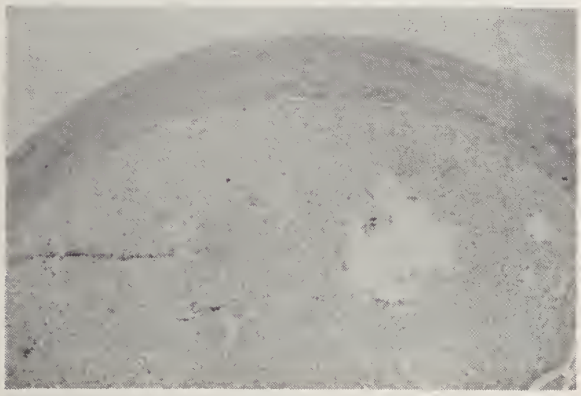


Figure 3

for the degree of failure. I wish to ask if later on she had a murmur which would be more characteristic of mitral insufficiency, since the autopsy suggested that this was present. Mitral insufficiency in these diseases can develop in two ways. Dilatation of the heart can enlarge the valve ring and produce insufficiency; also, in endocardial fibroelastosis direct involvement of the valve can lead to either stenosis or insufficiency."

VALVE INVOLVEMENT

Physician: "What I really wondered was if this valve could have rolled up and thickened in two weeks."

Dr. Watson: "The ones that die very soon after their clinical onset may have a lot of change in their endocardium. Apparently they develop this change in their heart and then they suddenly become clinically sick. I'm not really sure whether you are more likely to find an involved valve late rather than early. I think it is possible that it did develop during her illness and that this is why the murmur wasn't very characteristic at first and then later became characteristic. I have a strong hope that if this child had not had a terminal infection she would have lived."

Dr. Catherine G. Goetz: "You were talking about treatment of children. How long do you keep them—how long have you kept them going? Do they all still die within the first year usually?"

Dr. Watson: "Well, yes, usually, but we haven't that large a series. Dr. John Keith was one of the first to treat these patients for a long time with digitalis. He has treated some for years and one of his original cases about whom he was quite encouraged was treated for about five years. We've treated people for two years and longer. I almost never stop digitalis before one year has gone by, and I do like to have both the x-ray and EKG coming towards normal. It is easy to get too optimistic and stop digitalis too soon; then they seem fine for awhile and then develop failure. It is terribly important to keep these people on this treatment even though we don't know what it does or how it helps them."

SIGNIFICANCE OF ANEMIA

Dr. Sloan: "Don't you think the anemia contributed significantly to the picture in this case?"

Dr. Watson: "Certainly I think that it helped."

Dr. Blair E. Batson: "May I ask a question in connection with this? When this child was first seen here she had right ventricular hypertrophy and later developed biventricular hypertrophy. However, the primary disease is in the left ventricle. When the child first came in and was found to have right ventricular hypertrophy, do you think this fibrosis started in the right ventricle and later developed to a marked degree in the left ventricle? Also could the anemia have complicated the interpretation of the EKG?"

Dr. Watson: "I have no idea. Anemia ought to give left hypertrophy if it produces any hypertrophy and this disease most often gives left hypertrophy but it didn't. I just guess that the child hasn't read the book."

Dr. Brunson: "I would be the last to speculate how long it would take a mitral valve to get this way, chiefly because I agree with Dr. Watson that we don't know whether this is a congenital lesion or whether this represents an acquired disease. There are cases in which this same morphologic picture occurs in adults. One of those is an area of infarction involving the cardiac muscle and the endocardium will very often undergo elastosis similar to this. If localized sections are taken from those areas one can demonstrate a progressive increase in collagen and elastic fibers. In Africa, as you know, there occurs in adults a type of fibroelastosis which is associated very often with mural thrombosis and embolization. But in my experience the lesions of fibroelastosis of this type are usually associated with some deformity of a valve and usually the mitral valve. I would guess that it probably goes along with the rest of this disease."

Dr. Batson: "I think this probably is a very important case since many people would have

clinically classified this child as having acute myocarditis and would have denied the possibility that she could have endocardial fibroelastosis, primarily on the basis that she had responded so well to treatment. Following her first hospital admission she gained weight, recovered from congestive heart failure, and was doing beautifully, in fact, much better than any other patient whom I have seen with what I felt reasonably certain was endocardial fibroelastosis. Most such patients die very soon after onset of symptoms or regain only partially and linger on for months before expiring. It is true that others have seen patients whom they thought might have this disorder who have done well. However, it is difficult to prove the diagnosis except at postmortem examination.

"It seems to me that this patient quite possibly did not die as the result of heart disease but as a result of aspiration. She did have a very sudden episode in which she went into prolonged convulsions and acted very much as if she had suffered an anoxic insult. For me, this case really raises the question for the first time that patients with this disorder might actually have a mild form of the disease which does not invariably cause death quickly. I wonder if you have any comment about the patients that Dr. Keith has followed for some years. Did any of them die and, if so, what were the postmortem changes?"

Dr. Watson: "I am not aware that he has anybody just like this. By the way, Dr. Brunson, did you have any bacterial evidence regarding her pneumonia."

Dr. Brunson: "No, the lungs were not really grossly striking enough to suggest a culture. A lot of the changes were due to inflammatory edema. It looked like very early pneumonia. There was some frank bronchopneumonia, however."

Dr. Sloan: "It would still seem possible that much of the clinical improvement was due to the correction of the anemia, rather than any change in the cardiac lesion itself."

Dr. Watson: "I think it is a point very well taken, Dr. Sloan. However, they did correct her anemia, and it still took them a month to get her under control which would go along with the way these endocardial fibroelastotic patients present. I am sure the digitalis did nothing to her thickened endocardium. I think we could not have helped without correcting her anemia. I have seen other cases that seemed to be just as bad as this without the anemia, who were treated and showed improved x-rays and clinical courses and who were not unfortunate enough to get something else and die. Unless you have biopsy proof, you can't be sure that these were endocardial fibroelastosis cases. I believe that they were. I think that you can improve patients with endocardial fibroelastosis with digitalis about one-half of the time.

Physician: "Maybe this child had myocarditis recently plus anemia."

Dr. Brunson: "This is possible. One would like to see some residual scarring, though, in the myocardium. It doesn't look like a healed myocarditis or a resolved infarct."

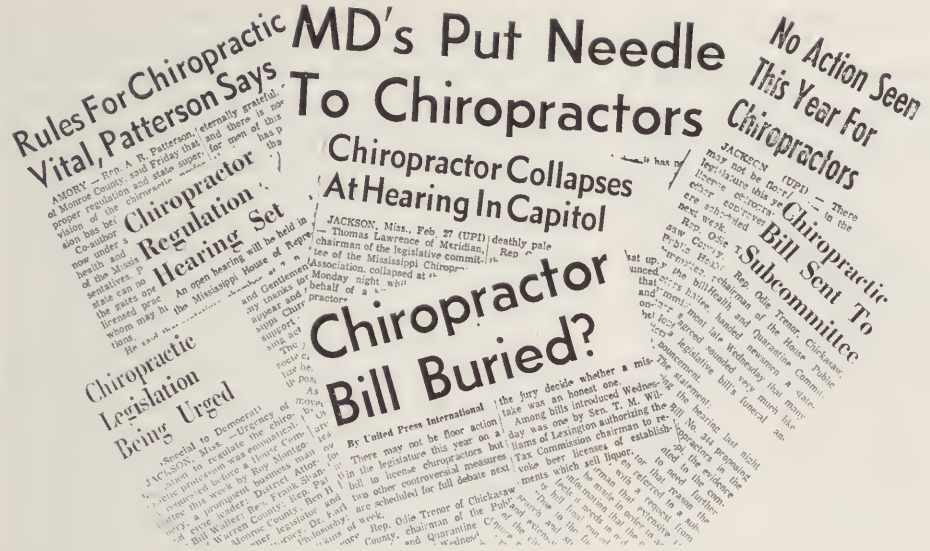
DIAGNOSIS: Endocardial fibroelastosis. ★★★

2500 North State Street

CONSOLING NOTE

Every other nation may be suffering from soaring defense budgets and sinking fallout shelters, but refreshing news from the tiny republic of Andorra, high up in the Pyrenees, is that *her* annual defense budget has just been cut from $5.74 to $4.48. Sole purpose of the allotment is to "stockpile" blank cartridges for the firing of salutes on ceremonial occasions.

Insider's Newsletter



MSMA's Testimony on House Bill 344

WILLIAM E. LOTTERHOS, M.D. and LAWRENCE W. LONG, M.D.
Jackson, Mississippi

On Feb. 14, 1962, House Bill 344 was introduced in the 1962 regular session of the Mississippi Legislature. The measure, sponsored by Reps. Frank E. Shanahan, Jr., Vicksburg; A. R. Patterson, Gattman; and Charles Allen, Jr., Amory, seeks complete licensure and legality for the cult of chiropractic in Mississippi. Mr. Allen withdrew his sponsorship.

Open hearings on the measure were conducted by the House Committee on Public Health and Quarantine on Feb. 27. Drs. William E. Lotterhos and Lawrence W. Long presented the association's testimony. This document was, therefore, what medicine in Mississippi thinks as a body about chiropractic licensure.

Dr. William E. Lotterhos: Mr. Chairman, my name is William E. Lotterhos and I am from Jackson, Miss., where I am engaged in the private practice of medicine. I am accompanied by Dr. Lawrence W. Long, Jackson, who is president of the Mississippi State Medical Association. Mr. Chairman, I propose to speak first and Dr. Long will conclude our testimony, all of which is formalized in this document to your committee.

We are deeply grateful for the privilege of appearing before you gentlemen to discuss the views of our association, a 106-year-old scientific professional society of about 1,400 doctors of medicine, with respect to House Bill 344. The policy positions of our association which we will express to you have been periodically reviewed and approved by a representative process designed to reflect the views of our membership. We, therefore, assure you that the viewpoint of this testimony is an accurate reflection of what Mississippi physicians as a professional body believe and seek in their unified goals of providing the best possible medical care to all citizens of our state.

Chairman of the Council on Legislation, Mississippi State Medical Association.

President, Mississippi State Medical Association.

Presented before the Committee on Public Health and Quarantine, House of Representatives, 1962 regular session of the Mississippi Legislature, Feb. 27, 1962.

PURPOSE OF TESTIMONY

Our objective in offering these views is to join all concerned in contributing to the best possible state of health through preventive and curative medicine. We believe that your committee seeks these same meritorious goals with serious concern. We have a deep appreciation for the enormous tasks which are before your committee and we are aware that about 9 per cent of all bills introduced in the 1962 regular session relate directly or indirectly to health care proposals. The work of your committee is, therefore, of the highest importance to more than two million Mississippians and your responsibilities in this connection are indeed awesome and substantial.

As physicians, we seek only that legislative climate which assures valid scientific health care for all Mississippians. We recognize and accept our traditional professional obligations, and we dedicate ourselves as doctors of medicine and citizens of our beloved state to such obligations, to careful observance of all laws, and to a system of self-imposed ethics which is probably the best known such system among all professions.

In opposing enactment of HB 344 in any form whatsoever, we advance this position solely in the interest of the health of the citizens of Mississippi. Our state has won great respect in informed scientific, political, and academic circles because it has steadfastly refused to grant licensure and endorsement to systems of irregular health practice for which there is no demonstrable evidence to support and validate their respective dogmas. There are four such states, Mr. Chairman, denying this recognition to chiropractic and, in addition to Mississippi, they are Louisiana, Massachusetts and New York.

WHAT CHIROPRACTIC IS

It is a matter of published record that chiropractors contend that disease is mechanical in origin, an interference with what they call "nerve force," and this tenet of chiropractic is strongly emphasized in Section 2(b) and (c) of the present bill. Chiropractors deny the effectiveness of modern drugs, surgery, or serums in the treatment of diseases caused by bacteria, virus organisms, and pathogenic substances. We are certain that your committee knows their position in opposing immunization.

Since the advent of a Salk poliomyelitis vaccine, incidence of this dread disease has been reduced from an annual average of about 35,000 cases in the United States to a bare 1,263 cases recorded during 1961. This is still too many but the evidence is clear that medicine and the Salk vaccine will eventually eradicate this disease from the face of the earth. The same is true of smallpox, typhoid fever, and many killers of past years and soon tetanus, too, may be eliminated.

Quite obviously, manipulation upon the spinal column or other external portions of the body produces no effect whatsoever in preventing such conditions.

It is an established scientific fact that vertebrae are rarely dislocated and those nerves issuing from vertebral spaces are so small in comparison with the opening of the bone structure and so well padded that direct pressure upon such nerves by the vertebrae is, for all practical purposes, very unlikely. But when such a condition as ruptured disc does occur and puts pressure on a nerve, it is an established fact that it only produces pain, numbness, and neuritis and not any disease affecting the rest of the human body. This, of course, is part of the overwhelming proof against chiropractic, the falseness of its premise, and its total opposition to scientific principles.

HOUSE BILL 344

The Mississippi State Medical Association feels that HB 344 is not only totally unnecessary but that its enactment would pose serious threats to the excellence of health care in Mississippi.

In this regard, let us consider certain portions of HB 344 and a 1960 study entitled "Chiropractic in California" conducted by the Stanford Research Institute of California. May I point out that this was an educational study made with the full cooperation of various chiropractic associations and schools in California and others. Also, the Stanford Research Institute is a highly respected, nationally known research organization.

Section 2(c) of HB 344 gives a broad definition of chiropractic practice because of the recognition given to two national chiropractic accrediting associations in Section 2(e). According to data in the Stanford Study, the International Chiropractic Association advocates the original doctrine of chiropractic called "straight" chiropractic. Followers of this doctrine believe chiropractors should limit themselves to spinal manipulations alone to cure disease. The other and larger association cited in Section 2(e), the National Chiropractic Association, mainly has as members those followers of what is called the "mixer" doctrine of chiropractic. The "mixers" have extended the "straights" doctrine to include the practice of specialties designated by chiropractors as proctology (the medical discipline dealing with dis-

eases of the anus and rectum), orthopedics (the medical discipline dealing with the correction of fractures and bone disease or prevention of deformities, especially in children), nutrition, psychiatry (the medical discipline dealing with mental disorders), cardiology (the medical discipline dealing with diseases of the heart), and other fields. They have also added the use of such modalities as light, electricity, and vitamins to the original philosophy and practice of chiropractic. It is suggested that enactment of HB 344 would give the people of Mississippi the unhealthy benefit of both doctrines and would, in effect, license people to practice medicine who are unable to meet the licensure requirements of the Medical Practice Act.

A logical question is what type of standards are being used in place of those in the Medical Practice Act. HB 344 in Section 2(e) and Section 6 requires applicants for licensure to be graduates of chiropractic schools accredited by the National Chiropractic Association or the International Chiropractic Association and then in Section 5, it is further provided that applicants must take a written examination prepared by a board composed of chiropractors. The examination is to cover the subjects of anatomy, physiology, pathology, chemistry, bacteriology, all of which would be requirements leading to a doctor of medicine degree if covered in their entirety, and others. The regulatory principles in these sections appear impressive but on closer examination of just what types of schools are accredited by the National Chiropractic Association and the International Chiropractic Association one can logically assume the type of examination that will be prepared by chiropractors to test chiropractors on their knowledge of science.

When the Stanford Study was made in 1960, the Los Angeles College of Chiropractic was one of the eight chiropractic schools in the United States accredited by the National Chiropractic Association. The Cleveland Chiropractic School of Los Angeles was one of seven chiropractic schools in the United States accredited by the International Chiropractic Association. Of the combined faculty of 29 instructors at these two schools—12 were classified as full time—all had high school diplomas but only 11 claimed any college education. Only 10 of the 29 had degrees from accredited colleges and universities. Of the 10 college graduates, one was a veterinarian, and four majored in the subjects of mathematics, sociology, psychology and education. The latter are subjects which obviously are not directly applicable to any healing art. The chiropractic schools had a ratio of one teacher to 26 pupils compared to one teacher to two pupils in medical schools.

The library at the Cleveland Chiropractic School measured seven feet, three inches by twelve feet, eight inches and contained 1,700 volumes. Less than 1 per cent of the books had been written in the past ten years. The school's explanation for this was, "Things are happening so fast in chiropractic that it would cost too much money to buy new books all the time." They were no periodicals on hand at the library to keep up with these fast moving changes. Also, the library had no librarian, card catalogs, or circulation records.

The library at the Los Angeles Chiropractic School was contained in 1,220 square feet of space. There were approximately 4,000 volumes, 92 per cent of which were over ten years old. There was a part-time librarian who was working on her bachelor's degree in library science. There were no circulation records dated prior to 1958.

Gentlemen, there are even more astonishing facts that could be cited but the point should be made that these are the schools the state of Mississippi is being asked to give scientific recognition and the graduates of these schools are the ones HB 344 requires to be tested in the sciences by their fellow cultists. I must observe that the tests can't be too difficult.

Mr. Chairman, I shall now ask you to permit Dr. Lawrence W. Long to continue this presentation which will then conclude the testimony of the Mississippi State Medical Association.

MEDICINE IN MISSISSIPPI

Dr. Lawrence W. Long: Mr. Chairman, medical science throughout recorded history has conscientiously and urgently devoted itself to research into the cause, diagnosis, proper treatment—and above all—the prevention of disease in man. Without question, it has been proven that medical and surgical approaches to disease as well as traumatic injures are sound and valid. I believe that you will agree with us that the concept of scientific medicine needs neither a defense nor a justification.

If our legislators, if our governors, and if our judges had not believed in this, then we would have no long and honorable history of sound health and medical statutes.

Since organization of the Mississippi State Board of Health in 1887, and enactment of the basic framework for our excellent Medical Practice Act in 1882, enlightened legislators, includ-

ing the present legislature, have strengthened public health laws and have protected the people effectively against the whims of health care impostors. Our association proposed and supported the original legislative act shortly after the Civil War which created the Mississippi State Board of Health.

A succession of enlightened governmental leaders, both in the executive and legislative branches of our state, have acted positively with respect to health care of the people. Our University of Mississippi School of Medicine—a magnificent and incomparable physical plant, a respected and competent faculty, and a corps of allied professional individuals—is helping Mississippi move ahead in the health field. Our system of community hospitals, wisely and appropriately constructed under the guidance and sponsorship of an agency which was created by the legislature, has brought quality health care facilities to the crossroads. Our own association has worked without ceasing, using our own funds which are received from dues voluntarily paid by physicians, in seeing to it that there is an optimal and effective distribution of doctors of medicine throughout Mississippi. At this very moment, it is virtually impossible to be more than 15 to 30 minutes away from a physician in 90 per cent of the land mass of Mississippi. Similarly, a hospital is always near and these may be reached through our splendid system of all-weather highways.

LICENSURE OF CULTISTS

It would be a curious paradox, indeed, if the 1962 regular session of the legislature were to confer endorsement, legality, and sanction upon a group whose disciples renounce all of the medical progress, all of the health care and all of the work of governmental leaders and the medical profession throughout our state. It would be a tragic renunciation and a hollow mockery of our University of Mississippi School of Medicine, of our splendid State Board of Health, of our Medical Practice Act, and of our hospital and medical professions if this bill were enacted in any form.

We are quite aware that some well-meaning and sincere individuals have stated that perhaps laws are needed to regulate and police the practice of chiropractic. We are certain that you gentlemen are not deceived by this transparent and flimsy contention. To enact any legislation under the veil of regulating and policing would simply be to define this irregular discipline in law and permit it a legal area of operation with the complete blessings of the state of Mississippi!

CHIROPRACTIC PRACTICE

It is interesting to note, and we believe quite significant, that there are no chiropractors in the United States Public Health Service.

There are no chiropractors in our magnificent National Institutes of Health from which life-saving techniques emerge from research almost daily.

There are no chiropractors in the Project Mercury space medicine program.

There are no chiropractors in the Veterans Administration and its vast network of hospitals.

There are no chiropractors in the Food and Drug Administration which is totally dedicated to protecting the people of this nation from fraudulent health practices in products and services.

There are no chiropractors in the nation's 86 approved medical schools.

Just what function, we respectfully ask your committee, can this group possibly serve in the interest of the people of Mississippi? We respectfully and sincerely insist that no good and much harm would inevitably and tragically result from enactment of House Bill 344 in any form, with any amendment, in any context.

We come to you not merely as physicians and professional individuals whose exacting standards of education are well known. We come to your committee as citizens of the state of Mississippi and as men and women who are devoted to this state, its way of life, and its constant uplifting in American culture. Since 1936, when the present indigent care laws were enacted by the legislature, we have happily and cheerfully given our services without charge to patients hospitalized under this program. More recently, we have joined in the team effort to provide care for those receiving Old Age Assistance under the Kerr-Mills program which our Governor and others implemented. We consider it a privilege to participate in other programs of the state which have contributed substantially to our citizens—such as vocational rehabilitation, school health programs, rehabilitation of the blind, care of the mentally ill, and in a host of quasi-official programs, many of which are sponsored by voluntary health organizations led by our citizens.

We despair, then, of the fact that this practice of chiropractic now being seriously considered by the legislative leaders of Mississippi, is held up in virtual comparison and equality with scientific medicine. It astonishes us when we realize

that this discipline was discovered by a man whose background was the grocery and fish business in Davenport, Iowa, in 1885, and that this individual had previously claimed that he could cure disease by means of magnetism.

We are astonished by the claims which are made and by the suggestions advanced by chiropractors with respect to their ability to cure diseases. We have with us tonight samples of clippings published in the press of Mississippi as paid advertisements which run through an astonishing range and spectrum of diseases, many of which are known by science to be incurable. We feel that this practice is reprehensible but we recognize that education, not legislation, is the answer to correcting this type of situation.

WHY WE OPPOSE HB 344

Since 1946, we have expended substantial sums of money in our State Medical Education Board program. This legislature has found it wise to train more than 600 doctors of medicine and the program has paid off. Together with our medical school and our system of hospitals, our continuous upgrading of scientific health care practices makes for a situation which is one of brilliant achievement and I believe that any state can well envy Mississippi's record in this connection.

We of the medical profession urge you gentlemen of the legislature to be consistent with your reasonable and learned pronouncements in law, and to be consistent in substantiating those beliefs which you know to be valid, that of medical science. Our concern is for the patient who unwittingly seeks the services of a person who says he can heal when he cannot. We are concerned for the ultimate well-being of the patient whose disease is progressing when proper care, not manipulations at the hands of a chiropractor, is necessary.

The Mississippi State Medical Association could do nothing but oppose House Bill 344 in its entirety, no matter how it is amended or how its provisions might be limited for the reasons we have stated. To do anything else would be to renounce what we know as the truth. We would be less than honest if we did not come before your committee with this frank and sincere and forthright expression. We, therefore, ask that your committee defeat this measure in the interest of the people of Mississippi. ★★★

735 Riverside Drive

IN THE HANDS OF BABES

Sammy Walsh, Miami entertainer, is fond of telling his audiences that when he was born his father wanted him to be a farmer while his mother wanted him to be a doctor. So they had the nurse place a pitchfork and a stethoscope in his crib. They figured the tool he grabbed first would decide the issue. "But, I fooled them both," says Sammy. "I grabbed the nurse."

COMMITTEES OF THE COUNCIL ON MEDICAL SERVICE

■ COMMITTEE ON AGING

M. Q. Ewing, Amory, Chairman
W. L. Jaquith, Whitfield
Thomas S. Eddleman, Jackson
Durward L. Blakey, Jackson
L. T. Carl, Jackson
C. P. Crenshaw, Jr., Collins
B. S. Guyton, Oxford

■ COMMITTEE ON DISEASES OF THE HEART

Alanson B. Smith, Meridian, Chairman
Wesley W. Lake, Gulfport
Thad D. Labecki, Jackson
Ira B. Bright, Greenwood
Laurance J. Clark, Vicksburg
V. Carlton Temple, Hattiesburg
Ben F. Hand, Greenville

■ COMMITTEE ON PHYSICAL THERAPY *(AD HOC)*

William E. Lotterhos, Jackson, Chairman
G. Swink Hicks, Natchez
William C. Warner, Jackson
James C. Bass, Jr., Laurel
Fred M. Sandifer, Greenwood

■ COMMITTEE ON BLOOD AND BLOOD BANKING *(AD HOC)*

Kenneth M. Heard, Jackson, Chairman
Catherine G. Goetz, Jackson
C. B. Mitchell, Jr., Meridian
R. H. Fenstermacher, Vicksburg
T. F. Puckett, Hattiesburg

■ COMMITTEE ON MENTAL HEALTH

John J. Head, Whitfield, Chairman
Tom H. Mitchell, Vicksburg
R. E. Toms, Jackson
L. C. Hanes, Jr., Jackson

■ COMMITTEE ON MATERNAL AND CHILD CARE

Michael Newton, Jackson, Chairman
Howard A. Nelson, Greenwood
Margaret P. Veller, Natchez
W. E. Noblin, Jackson
Jo N. Robinson, Columbus
W. B. Wiener, Jackson
Ralph L. Brock, McComb
J. Manning Hudson, Jackson, Consultant
Curtis W. Caine, Jackson, Consultant
Catherine G. Goetz, Jackson, Consultant

■ COMMITTEE ON FEDERAL MEDICAL SERVICES

R. J. Moorhead, Yazoo City, Chairman
T. G. Ross, Jackson
Kenneth Terrell, Prentiss
Eldon L. Bolton, Biloxi
George S. Barnes, Columbus
A. C. Bryan, Jr., Meridian

■ COMMITTEE ON CANCER CONTROL

Frank A. Wood, Jackson, Chairman
George F. Archer, Greenville
J. P. McLaurin, Jr., Oxford
W. L. Stallworth, Columbus
J. G. McKinnon, Hattiesburg
G. Swink Hicks, Natchez
B. F. Floyd, Gulfport

■ COMMITTEE ON OCCUPATIONAL HEALTH

George D. Purvis, Jackson, Chairman
H. Lowry Rush, Jr., Meridian
Jack V. King, Jackson
George H. Martin, Vicksburg
Lynn D. Abernethy, Jackson
Clyde Smith, Greenwood
Frank M. Acree, Greenville

94th Annual Session

Mississippi State Medical Association

Jackson, May 7-10, 1962

MISSISSIPPI'S HISTORIC CAPITAL CITY will welcome the 94th Annual Session of the association which, with concurrent events and meetings, will offer four consecutive days of intensive postgraduate education opportunity to physicians. Scoring an important medical and scientific first, the association will present a Symposium on Space Medicine on May 9. Essayists include three internationally recognized physician-scientists intimately associated with the nation's space program and a distinguished member of the United States Senate. They are Drs. Hubertus Strughold, John P. Stapp, David G. Simons, and Senator John C. Stennis. A Mercury MA-4 space capsule, on loan from the National Aeronautics and Space Administration, will be exhibited in conjunction with the symposium.

The Woman's Auxiliary will conduct its 39th Annual Session with pre- and postconvention activities extending over May 7-9. The general session is scheduled for May 8. All major Jackson hotels are cooperating and the Heidelberg and King Edward will be co-headquarters hotels. Preparations are being made to accommodate a registration of 1,500.

The Scientific Assembly, House of Delegates, and technical and scientific exhibits will be located at the Heidelberg while the Woman's Auxiliary, most specialty societies, and related major events will be sited at the King Edward.

More than 80 speakers will appear before the seven sections of the Scientific Assembly, the Symposium on Space Medicine, the Auxiliary, and various concurrent meetings. About 20 specialty societies and medical alumni groups will meet. Special guests include Dr. George M. Fister, Ogden, Utah, president-elect of the American Medical Association, and Mrs. Robert D. Croom, Jr., Maxton, N. C., member of the AMA Woman's Auxiliary Board of Directors.

Combining recreational fare for the physician's family and the doctor himself, the annual association golf tournament and skeet shoot will be conducted on May 9. The social highlight will occur that evening when the annual banquet and dance are held. Medical alumni from Ole Miss, Tennessee, and Tulane will sponsor banquet occasions.

Early registrants will enjoy specialty society meetings on May 7 and the House of Delegates will meet that afternoon. Tuesday will mark the opening of the Scientific Assembly which will continue through Thursday when the House concludes business with election of 1962-63 officers at its adjourned meeting.

Hotel reservations may be obtained from the hotel of individual preference or through O. F. McDade, MSMA Housing Bureau, Hotel Heidelberg, Jackson.

OFFICIAL CALL

To all members of the Mississippi State Medical Association:

The 94th Annual Session of the Mississippi State Medical Association is called to meet at Jackson, Mississippi, on Monday, May 7, 1962, pursuant to Article V of the constitution. The House of Delegates will be convened at 1:30 o'clock p.m. at the Hotel Heidelberg.

The Scientific Assembly, consisting of the seven sections and a Symposium on Space Medicine, will meet during the period May 8-10, 1962.

No member or guest will be permitted to participate in any aspect of the annual session until regularly registered.

LAWRENCE W. LONG
PRESIDENT
C. G. SUTHERLAND
SECRETARY-TREASURER

STATE OFFICERS 1961-62



Dr. Long

President
Lawrence W. Long, M.D.
Jackson

President-Elect
C. P. Crenshaw, M.D.
Collins

Secretary-Treasurer
C. G. Sutherland, M.D.
Jackson



Dr. Crenshaw

Vice Presidents	Joseph L. Guyton, M.D., Pontotoc Tom H. Mitchell, M.D., Vicksburg A. T. Tatum, M.D., Petal
Editor	W. Moncure Dabney, M.D., Crystal Springs
Associate Editors	Dewitt W. Hamrick, M.D., Corinth George H. Martin, M.D., Vicksburg
Speaker	B. B. O'Mara, M.D., Biloxi
Vice Speaker	Howard A. Nelson, M.D., Greenwood
AMA Delegates	J. P. Culpepper, M.D., Hattiesburg John F. Lucas, M.D., Greenwood
Executive Secretary	Rowland B. Kennedy, Jackson
Assistant Executive Secretary	Charles L. Mathews, Jackson

THE BOARD OF TRUSTEES

H. H. McClanahan, M.D., Columbus, Chairman

John B. Howell, Jr., M.D., Canton, Vice Chairman

C. D. Taylor, Jr., M.D., Pass Christian, Secretary

John G. Archer, M.D., Greenville

Joseph B. Rogers, M.D., Oxford

S. Lamar Bailey, M.D., Kosciusko

Lamar Arrington, M.D., Meridian

C. P. Crenshaw, M.D., Collins

Everett H. Crawford, M.D., Tylertown

PAST PRESIDENTS

1914-1915 . . . . . J. S. Ullman, M.D., Natchez
1931-1932 . . . . . J. C. Culley, M.D., Oxford
1933-1934 . . . . . John W. D. Dicks, M.D., Vicksburg
1935-1936 . . . . . J. R. Hill, M.D., Corinth
1936-1937 . . . . . Harvey F. Garrison, M.D., Jackson
1940-1941 . . . . . William H. Anderson, M.D., Booneville
1941-1942 . . . . . A. Street, M.D., Vicksburg
1942-1943 . . . . . H. Lowry Rush, Sr., M.D., Meridian
1943-1944 . . . . . E. LeRoy Wilkins, M.D., Clarksdale
1944-1945 . . . . . B. L. Crawford, M.D., Tylertown
1946-1947 . . . . . J. K. Avent, Sr., M.D., Grenada
1948-1949 . . . . . R. B. Caldwell, M.D., Baldwyn
1949-1950 . . . . . B. B. O'Mara, M.D., Biloxi
1950-1951 . . . . . B. S. Guyton, M.D., Oxford
1951-1952 . . . . . James Grant Thompson, M.D., Jackson
1952-1953 . . . . . Lamar Arrington, M.D., Meridian
1953-1954 . . . . . M. Q. Ewing, M.D., Amory
1955-1956 . . . . . S. Lamar Bailey, M.D., Kosciusko
1956-1957 . . . . . H. C. Ricks, M.D., Jackson
1957-1958 . . . . . Howard A. Nelson, M.D., Greenwood
1958-1959 . . . . . Guy T. Vise, M.D., Meridian
1959-1960 . . . . . Stanley A. Hill, M.D., Corinth
1960-1961 . . . . . G. Swink Hicks, M.D., Natchez

OPEN SESSIONS, HOUSE OF DELEGATES

All members, guests, and Auxiliary members are invited to attend the open sessions of the House of Delegates, the first beginning at about 3:30 p.m., Monday, May 7, 1962, in the Victory Room, Hotel Heidelberg. The program includes:

Address of the President
Lawrence W. Long, Jackson
Special Address
George M. Fister, Ogden, Utah, President-elect, American Medical Association
Thursday, May 10, 1962:
The Distinguished Service Oration
C. D. Taylor, Jr., Pass Christian

ACTIVITIES CALENDAR

REGISTRATION

General registration for the House of Delegates and the Scientific Assembly will be located on the second level of the Hotel Heidelberg in the Victory Foyer-Lounge area. No person will be admitted to any activity of the Annual Session without first registering. The Secretary's Office will be located in the Victory Foyer. Hours of registration are: May 7, 9:00 a.m. to 5:00 p.m.; May 8, 8:00 a.m. to 5:00 p.m.; May 9, 8:00 a.m. to 5:00 p.m.; and May 10, 8:00 a.m. to 1:30 p.m.

MONDAY, MAY 7, 1962

9:00 a.m. Miss. Association of Pathologists, Creole Room, King Edward
12:00 noon American College of Surgeons, Luncheon, Walnut Room, King Edward
12:00 noon Woman's Auxiliary Dutch Treat Luncheon, Capital City Club, Walthall
1:30 p.m. House of Delegates, Victory Room, Heidelberg
2:00 p.m. Miss. Urological Association, Parlor B, Heidelberg
4:00 p.m. American College of Chest Physicians, Gold Room, King Edward
4:00 p.m. Miss. Society of Internal Medicine, Room 3-A, University of Mississippi School of Medicine
4:30 p.m. Woman's Auxiliary Preconvention Executive Board, Walnut Room, King Edward
5:00 p.m. American College of Chest Physicians, Fellowship Hour, Gold Room, King Edward
6:30 p.m. Miss. Association of Pathologists, Fellowship Hour and Banquet, Coronet Room, King Edward
6:30 p.m. Miss. Urological Association, Banquet, Parlor A, Heidelberg
6:30 p.m. University of Mississippi Class of '42 Reunion, Fellowship Hour and Banquet, Club Room, King Edward
6:30 p.m. University of Tennessee Medical Alumni, Fellowship Hour and Banquet, Heidelberg Roof, Heidelberg
6:30 p.m. Tulane University Medical Alumni, Fellowship Hour and Banquet, Rose and Silver Rooms, Heidelberg
6:30 p.m. University of Mississippi Class of '54 Reunion, Fellowship Hour and Banquet, Bamboo Room, King Edward

TUESDAY, MAY 8, 1962

7:30 a.m. Woman's Auxiliary, Continental Breakfast, All Auxiliary Members, Coronet Room, King Edward
8:30 a.m. Woman's Auxiliary, General Session, Coronet Room, King Edward
9:00 a.m. Section on Pediatrics, Victory Room, Heidelberg

10:00 a.m. Reference Committee on Reports of Officers and Board of Trustees, Parlor A, Heidelberg
12:00 noon Fifty Year Club, Luncheon, Silver Room, Heidelberg
12:00 noon Miss. Radiological Society, Luncheon, Gold Room, King Edward
12:30 p.m. Woman's Auxiliary, Luncheon, Crown Room, King Edward
12:30 p.m. Miss. Orthopaedic Society, Luncheon, Walnut Room, King Edward
2:00 p.m. Section on Medicine, Victory Room, Heidelberg
2:00 p.m. Reference Committee on Medical Practices, Parlor A, Heidelberg
2:00 p.m. Council on Constitution and By-Laws, Parlor B, Heidelberg
2.30 p.m. Woman's Auxiliary, Postconvention Executive Board, Coronet Room, King Edward
4:30 p.m. University of Mississippi Medical Alumni, Board of Directors and General Business Meeting, Heidelberg Roof, Heidelberg
6:30 p.m. University of Mississippi Medical Alumni, Fellowship Hour, Smorgasbord, and Dance, Heidelberg Roof, Heidelberg

WEDNESDAY, MAY 9, 1962

7:30 a.m. Past Presidents' Breakfast, MSMA, Parlor A, Heidelberg
7:30 a.m. Past Presidents' Breakfast, Woman's Auxiliary, Walnut Room, King Edward
9:00 a.m. Symposium on Space Medicine, Victory Room, Heidelberg
12:00 noon Flying Physicians Association, Luncheon, Walnut Room, King Edward
12:00 noon Section on EENT, Luncheon, Silver Room, Heidelberg
1:30 p.m. Woman's Auxiliary, "Floral Treatment of Fauna," Coronet Room, King Edward
2:00 p.m. Nominating Committee, MSMA, Open Session, Parlor A, Heidelberg
2:00 p.m. Reference Committee on Miscellaneous Business, Parlor B, Heidelberg
2:00 p.m. Section on EENT, Rose Room, Heidelberg
2:00 p.m. Section on Surgery, Victory Room, Heidelberg
2:30 p.m. Woman's Auxiliary, Tour of Mynelle's Gardens, Transportation Leaving from King Edward Motor Entrance
6:30 p.m. MSMA Fellowship Hour, All Members and Guests, Rose and Silver Rooms, Heidelberg
7:30 p.m. Annual Association Banquet, Victory Room, Heidelberg
9:00 p.m. Annual Association Dance, Heidelberg Roof, Heidelberg

ACTIVITIES CALENDAR

THURSDAY, MAY 10, 1962

7:30 a.m. Southern Medical Association, Breakfast, Heidelberg Roof, Heidelberg (By Invitation)

9:00 a.m. Section on General Practice, Victory Room, Heidelberg

9:00 a.m. Section on Obstetrics and Gynecology, Silver Room, Heidelberg

9:00 a.m. Section on Preventive Medicine, Parlor A, Heidelberg

11:30 a.m. Miss. Ob-Gyn Society, Fellowship Hour, Luncheon, Scientific Meeting, Rose Room, Heidelberg

12:00 noon Miss. Academy of General Practice, Luncheon, Heidelberg Roof, Heidelberg

1:30 p.m. House of Delegates, Victory Room, Heidelberg

GOLF TOURNAMENT

The annual MSMA golf tournament will be held on May 9 at the Jackson Country Club. Dr Claude G. Callender, Jackson, tournament chairman, will furnish details to interested members.

SKEET SHOOT

The annual association skeet shoot will be held on May 9. Dr. Walter H. Simmons, Jackson, chairman of the event, will supply details and directions to the range.

PUBLIC SHOWING OF SPACE EXHIBITS

On Friday and Saturday, May 11-12, 1962, there will be a public showing of the Mercury MA-4 Space Capsule and associated exhibits in the Olympic Room, Hotel Heidelberg, under association sponsorship. Appropriate announcement will be made through the press, radio, and television.



GROWTH

When should the tree cease its upward reaching?

Ten years ago, Mississippi Blue Cross-Blue Shield had 142,000 members. **Today, membership stands at over 365,000.** Ten years ago, benefits were paid at an annual rate of just over $1,500,000. **In 1961, almost $13,000,000 was paid out in benefits.** Accumulated benefits paid out since Mississippi Blue Cross-Blue Shield was founded 14 years ago total **75 million dollars.** Such growth in membership and benefits attests Mississippi Blue Cross-Blue Shield's remarkable success. Here is a unique story of growth and service to people in this area. ☐ Mississippi Blue Cross-Blue Shield will continue to develop practical, comprehensive and progressive programs to maintain the best health care protection money can buy.

MISSISSIPPI

BLUE CROSS
BLUE SHIELD

MISSISSIPPI HOSPITAL & MEDICAL SERVICE / 530 EAST WOODROW WILSON AVE. / JACKSON, MISS. / TELEPHONE EM 6-1422

Truly a 'A
a



Abars Pharmaceuticals has won the respect of the medical profession of the Magnolia State. In fact, its integrity for setting and maintaining high product standards and its dedication to service have led Abars to an enviable position . . . today Abars products are available in all drug warehouses serving the medical profession of this state.

All of Abars products are ethical . . . and meet the most exacting standards and requirements of state and federal governments. Abars' own methods of strict control include its Medical Advisory Board composed of active practicing physicians, all of whom are past presidents of MSMA or the MAGP. The services of the nation's largest testing laboratory—Scientific Associates—are used, insuring the exacting standards set by the management and the Medical Advisory Board.

To Be of Service to the Medical Professi

eavyweight among

lgesic-antipyretic agents

DIPREX

. . . Abars brand of Dipyrone

DIPREX is Abars' brand of Dipyrone. A 50% aqueous solution of sodium—1—Phenyl—2, 3,—Dimethyl—4—Aminopyrazolon—N—Methanesulfonate. This synthetic chemical compound is receiving wide attention in the non-narcotic treatment of acute pain. Indications: Biliary and Renal Colic, Postoperative Pain, Migraine Headache, Neuralgia, Gout, Lumbago, Rheumatism and Angina Pectoris. Developed and used extensively in Europe since 1931, this product has now gained prominent acceptance in the United States. An example of professional commentary in this country are these statements* by Morris Joseph, M.D., F.A.C.S., from his summary of experience with 1,000 intravenous injections:

"In evaluating dipyrone as an unusual analgesic, the following facts reveal themselves. There is a promptness and effectiveness of relief in a host of conditions. The absence of any serious untoward effects is invaluable. The elimination of any possibility of addiction is extremely important. . . .

"The benefits of dipyrone in ordinary severe types of pain encountered in office practice cannot be too strongly emphasized. . . .

"The value of putting a suffering patient at ease and creating a feeling of well-being is a real boon. Pre- and postoperative use of dipyrone in the hospital, by which relief from pain results without production of a state of clouded consciousness, can make the work of the hospital personnel far easier.

"The antipyretic action of the drug is of much value in patients with elevated temperatures. Here the work for the hospital personnel is alleviated."

Dosage: 2 to 5 cc. or 1 to 3 tablets depending on the severity of the pain and the response of the patient. Diprex injectable may be administered intravenously, intra-muscularly or subcutaneously.

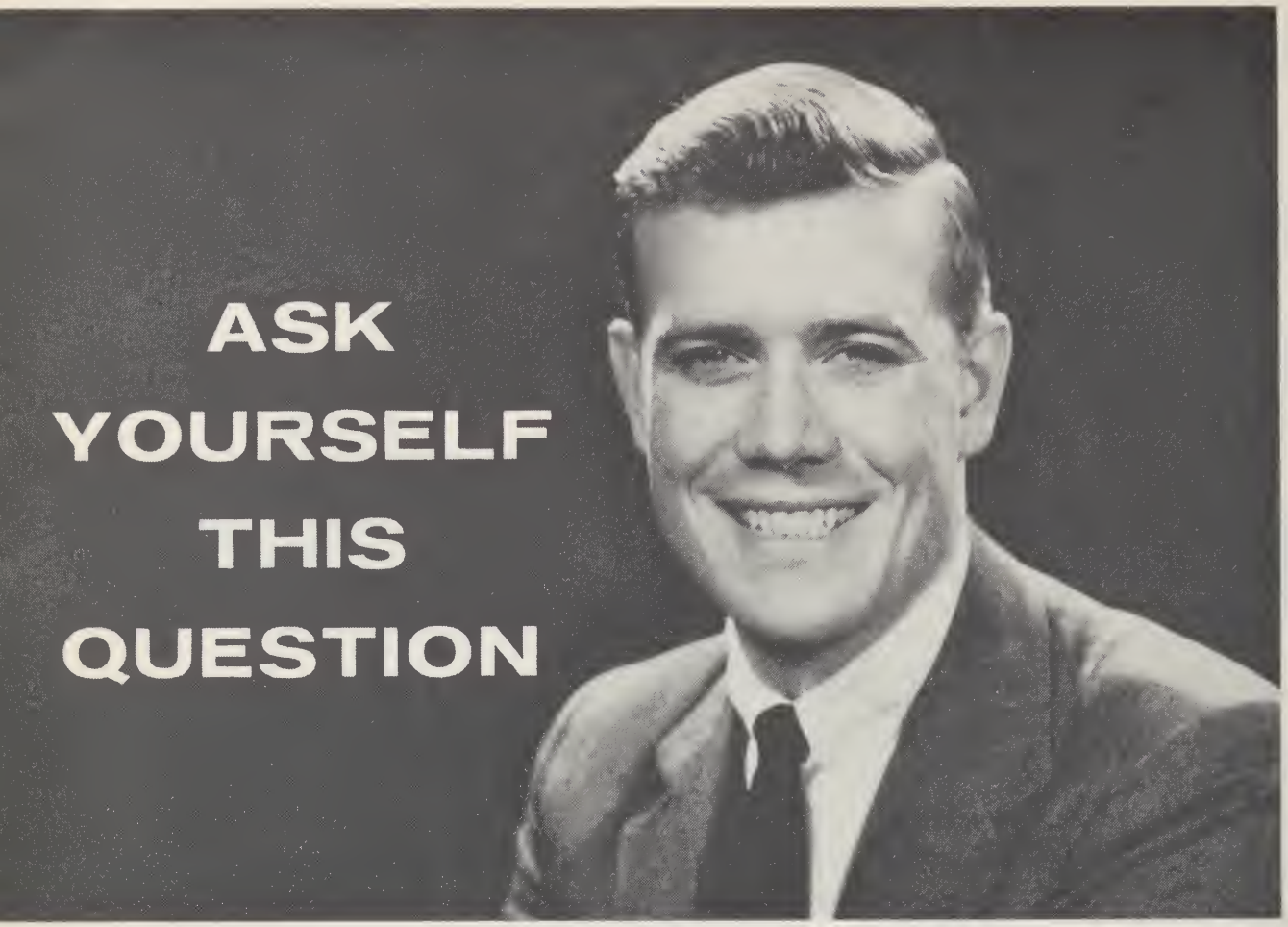
SUPPLIED: 30 cc. vials and 5 gr. tablets—bottles of 100 and 1,000.

* Joseph, Morris. Dipyrone—The Dynamic Non-Narcotic Analgetic, J. Abdom. Surg. I:57-60 (May) 1959.

abars ETHICAL PHARMACEUTICALS

MEDICAL ARTS BUILDING · JACKSON, MISSISSIPPI

Mississippi is Our Greatest Ambition



"How can I set a savings goal
-and guarantee I'll get there?"

First Federal of Jackson provides the answer in Guaranteed Dollars – a plan that will bring a smile to your face. The secret is systematic monthly saving, coupled with insurance on your life. Saving builds your cash reserve; life insurance assures your savings goal if death should occur. As savings increase, life insurance decreases, thus giving your plan a constant value at all times. There is nothing to compare. You save, your money earns and you have the protection of life insurance to assure your savings goal. Withdrawals may be made at any time, providing an extra reserve fund for emergencies if necessary.

Guaranteed Dollars Plans available in any amount for 10, 15, 20 years or longer. Call or write today for further details, giving your age, amount you want to save, and length of time desired.

FIRST FEDERAL
SAVINGS AND LOAN ASSOCIATION

204 SOUTH STATE
JACKSON, MISSISSIPPI

Guaranteed Dollars
SAVINGS PLAN

If you're 35 years old
Save $35.78 monthly for $10,000
20-year plan
(Progress of plan as each year passes)

Attained Age	As Savings Increase	Insurance Decreases	Total Value of Plan
36	373.48	12,996.00	13,369.48
37	762.05	12,312.00	13,074.05
38	1,166.32	11,628.00	12,794.32
39	1,586.92	10,944.00	12,530.92
40	2,024.52	10,260.00	12,284.52
41	2,479.79	9,576.00	12,055.79
42	2,953.46	8,892.00	11,845.46
43	3,446.26	8,208.00	11,654.26
44	3,958.97	7,524.00	11,482.97
45	4,492.39	6,840.00	11,332.39
46	5,047.37	6,156.00	11,203.37
47	5,624.76	5,472.00	11,096.76
48	6,225.49	4,788.00	11,013.49
49	6,850.48	4,104.00	10,954.48
50	7,500.72	3,420.00	10,920.72
51	8,177.23	2,736.00	10,913.23
52	8,881.08	2,052.00	10,933.08
53	9,613.35	1,368.00	10,981.35
54	10,375.22	684.00	11,059.22
55	11,167.85	.00	11,167.85

You Save $8,650.95 – You Earn $2,516.90

EXECUTIVE BUSINESS

HOUSE OF DELEGATES

Monday, May 7, 1962
1:30 p.m.

The Hotel Heidelberg
Victory Room

B. B. O'Mara, M.D.,
Biloxi, Speaker

Howard A. Nelson, M.D.,
Greenwood, Vice Speaker



DR. O'MARA



DR. NELSON

MEETINGS OF THE HOUSE

The meeting will be opened by the President and the Speaker, in presiding over the House, will announce the order of business. The adjourned meeting will be opened at 1:30 p.m., Thursday, May 10, 1962, in the Victory Room. All meetings of the House will be held at the Hotel Heidelberg.

REFERENCE COMMITTEES

Reports, resolutions, and other business coming before the House will ordinarily be referred to a reference committee by the Speaker or Vice Speaker for hearing and recommendation. Any member of the association may appear before a reference committee on any matter being considered. Reference committees are scheduled to meet at the Hotel Heidelberg at the times and places shown.

Reports of Officers and Board of Trustees, Tuesday, May 8, 1962, Parlor A, 10:00 a.m.

Medical Practices, Tuesday, May 8, 1962, Parlor A, 2:00 p.m.

Constitution and By-Laws (Council), Tuesday, May 8, 1962, Parlor B, 2:00 p.m.

Miscellaneous Business, Wednesday, May 9, 1962, Parlor B, 2:00 p.m.

Nominating Committee, Open Session, Wednesday, May 9, 1962, Parlor A, 2:00 p.m.

THE SCIENTIFIC ASSEMBLY



DR. SUTHERLAND

COUNCIL ON SCIENTIFIC ASSEMBLY

C. G. SUTHERLAND, M.D., CHAIRMAN

THE SCIENTIFIC EXHIBIT

OLYMPIC ROOM
THE HOTEL HEIDELBERG

THE TECHNICAL EXHIBIT

OLYMPIC ROOM
THE HOTEL HEIDELBERG

SCIENTIFIC SECTIONS

EYE, EAR, NOSE AND THROAT
MEDICINE
OBSTETRICS AND GYNECOLOGY
PEDIATRICS
PREVENTIVE MEDICINE
SURGERY
GENERAL PRACTICE
THE HOTEL HEIDELBERG

CONDUCT OF THE SCIENTIFIC ASSEMBLY

The order of exercise, papers, and discussions as set forth in the official program shall be followed until completion. When the program of a section is not completed in the time allotted, it shall not be permitted to continue into that assigned to another section. No paper or address shall occupy more than twenty minutes, except those of the President, Orator, and guests. In formal discussion, no one shall speak more than five minutes, and in informal discussion, no one shall speak more than three minutes and not more than one time. All papers read before the association shall become its property. Each paper must be read by its author and deposited with the Secretary (or Chairman of the Section) when read.

THE SCIENTIFIC EXHIBIT

Physicians, foundations, and organizations will present the Scientific Exhibit. Physician-members of the Mississippi State Medical Association are eligible for the Annual Gold Medal Award for excellence in scientific work. Guest exhibitors, foundations, and organizations do not participate for the medal but may receive recognition for outstanding presentations. The Scientific Exhibit is located in the Olympic Room, Hotel Heidelberg.

EXHIBITORS

"Complications of Atherosclerosis"

James D. Hardy, M.D., and Watts R. Webb, M.D., Jackson

"Jaundice-Prehepatic, Hepatic, Posthepatic"

The Field Clinic, Centreville

"The Diagnosis and Treatment of External Otitis"

Edley H. Jones, M.D., and Patrick G. McLain, M.D., Vicksburg

"The Treatment of Cancer of the Skin in Private Practice"

James G. Thompson, M.D., Jackson

"Steering Wheel Injuries of the Chest"

William G. Pace, M.D., Columbus, Ohio

"The Use of Intranasal Oxytocin in Obstetrics"

Michael Newton, M.D., Jackson

The Mississippi Heart Association

THE TECHNICAL EXHIBIT

The Mississippi State Medical Association presents with pride the 1962 Technical Exhibit. Established firms engaged in the manufacture and distribution of pharmaceuticals, supplies, equipment, and in providing varied services will present exhibits. Visit each exhibit often and discuss products and services with the Professional Service Representatives. Since the association conducts its scientific activity by section meetings, continuous viewing of exhibits during off-section schedules is possible and specific reservations of time are unnecessary for physicians to visit the Technical Exhibits. Only registered members and guests are admitted. The Technical Exhibit is located in the Olympic Room, Hotel Heidelberg.

EXHIBITORS	BOOTH
Abars Pharmaceuticals, Jackson, Miss.	3
Abbott Laboratories, Chicago, Ill.	2
A. S. Aloe Company of Louisiana, Inc., New Orleans, La.	54
Amid Laboratories, Inc., Jackson, Miss.	56
Ayerst Laboratories, Atlanta, Ga.	68
Bedsole Surgical Supply Company, Inc., Mobile, Ala.	8
Bonner Travel Agency, Jackson, Miss.	52
The Borden Company, New York, N. Y.	58
Ciba Pharmaceutical Products, Inc., Summit, N. J.	32
The Coca-Cola Company, Atlanta, Ga.	63
Desitin Chemical Company, Inc., Providence, R. I.	33
Eli Lilly and Company, Indianapolis, Ind.	44
Fred Kremp Company, Jackson, Miss.	67
Geigy Pharmaceuticals, Yonkers, N. Y.	46
IBM Corporation, Jackson, Miss.	10
John Hancock Mutual Life Insurance Company, Boston, Mass.	45
Kay Surgical, Inc., Jackson, Miss.	19
The Lanier Company, Jackson, Miss.	4
Lederle Laboratories, Pearl River, N. Y.	66
J. B. Lippincott Company, Philadelphia, Pa.	72
J. A. Majors Company, Dallas, Texas	53
McNees Medical Supply Company, Jackson, Miss.	1
McNeil Laboratories, Inc., Fort Washington, Pa.	48

Mead Johnson and Company, Evansville, Ind. 61
Medco Products Company, Tulsa, Okla. 39
Merck Sharp and Dohme, Philadelphia, Pa. 60
Merrill Lynch, Pierce, Fenner and Smith, Jackson, Miss. 15
Mississippi Hospital and Medical Service, Jackson, Miss. 65
Mutual Benefit Life Insurance Company, Newark, N. J. 57
The National Cash Register Company, Jackson, Miss. 35
Ortho Pharmaceutical Corp., Raritan, N. J. 34
Parke, Davis and Company, Detroit, Mich. 70
Pfizer Laboratories, Brooklyn, N. Y. 6
William P. Poythress and Company, Inc., Richmond, Va. 73
A. H. Robins Company, Inc., Richmond, Va. 59
Roche Laboratories, Nutley, N. J. 64
J. B. Roerig and Company, New York, N. Y. 31
William H. Rorer, Inc., Philadelphia, Pa. 7
St. Paul Fire and Marine Insurance Company, St. Paul, Minn. . . 55
Sandoz Pharmaceuticals, Hanover, N. J. 9
Schering Corporation, Union, N. J. 71
G. D. Searle and Company, Chicago, Ill. 62
Smith Kline and French Laboratories, Philadelphia, Pa. 43
Southern Surgical Supply Company, Inc., New Orleans, La. 49
Southwest Drugstores, Jackson, Miss. 47
E. R. Squibb and Sons, New York, N. Y. 21
The Stuart Company, Pasadena, Calif. 20
The Upjohn Company, Kalamazoo, Mich. 40
U. S. Vitamin and Pharmaceutical Corp., New York, N.Y. 42
Warner-Chilcott Laboratories, Morris Plains, N. J. 69
Winthrop Laboratories, New York, N. Y. 5

REGISTRATION FOR EXHIBIT PRIZES

Visit the Technical Exhibits often and qualify for the drawing of attractive prizes. Secure your card showing the names of the exhibitors and obtain the necessary initials as you visit each booth. Deposit cards at Registration not later than 5:00 p.m., Wednesday, May 9. Exhibitors will initial cards only when in the possession of the physician whose name appears thereon and the cards are not transferrable.

Symposium on Space Medicine



UNITED STATES AIR FORCE AEROSPACE MEDICAL CENTER, BROOKS AIR FORCE BASE, TEXAS



UNITED STATES AIR FORCE SCHOOL OF AVIATION MEDICINE, BROOKS AIR FORCE BASE, TEXAS



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, WASHINGTON, D. C.



MISSISSIPPI STATE MEDICAL ASSOCIATION, JACKSON

THE SYMPOSIUM

Wednesday, May 9, 1962

Victory Room

Beginning at 9:00 a.m.

SYMPOSIUM MEMBERS

C. G. Sutherland, Jackson, Chairman, Council on Scientific Assembly, presiding

I

Lawrence W. Long, Jackson

II

David G. Simons, Brooks AFB, Texas

III

John Paul Stapp, Brooks AFB, Texas

IV

Hubertus Strughold, Brooks AFB, Texas

V

The Honorable John C. Stennis, U.S.S.

SPECIAL ADJUNCTIVE EXHIBITS

In the Olympic Room, the exhibit hall adjacent to the principal meeting room, special adjunctive exhibits related to the symposium may be viewed:

National Aeronautics and Space Administration
The Mercury MA-4 Space Capsule

United States Air Force Medical Department
Man and Space
Behind the Scenes of Bioastronautical Research
Aerospace Crew Effectiveness

SECTION ON PEDIATRICS



DR. WIYGUL

Tuesday, May 8, 1962
Victory Room
Beginning at 9:00 a.m.

Frank M. Wiygul, Jr., Jackson
Chairman

Carl P. Bernet, Jr., Greenwood
Secretary

APPENDICITIS IN CHILDHOOD
Luther A. Longino, Boston, Massachusetts

THE ALLERGIC CHILD—PHYSICAL ASPECTS OF ALLERGIC RHINITIS
Wilfred Q. Cole, Jackson

THE AMERICAN MEDICAL ASSOCIATION'S STUDY OF PERINATAL MORTALITY AND MORBIDITY
Howard A. Nelson, Greenwood

DEVELOPMENTAL ABNORMALITIES OF THE LOWER EXTREMITIES IN CHILDREN
Alvin J. Ingram, Memphis, Tennessee

ELECTION OF 1963 SECTION OFFICERS
The Chairman Presiding (Only registered members of the section may vote)

SECTION ON MEDICINE



DR. GRENFELL

Tuesday, May 8, 1962
Victory Room
Beginning at 2:00 p.m.

Raymond F. Grenfell, Jackson
Chairman

Joe S. Covington, Meridian
Secretary

SIDE REACTIONS IN THE USE OF CORTISONE THERAPY IN ARTHRITIS
Russell L. Cecil, New York, New York

CHEST PAIN—DIFFERENTIAL DIAGNOSIS
David J. Van Landingham, Jackson

X-RAY DIAGNOSIS OF CANCER OF THE COLON—ITS MANY FACES
Ted F. Leigh, Atlanta, Georgia

FADS AND FANCIES IN THE TREATMENT OF ARTHRITIS
Dr. Cecil

ELECTION OF 1963 SECTION OFFICERS
The Chairman Presiding (Only registered members of the section may vote)

SECTION ON SURGERY



DR. THOMPSON

Wednesday, May 9, 1962
Victory Room
Beginning at 2:00 p.m.

James T. Thompson, Moss Point
Chairman

Joseph G. McKinnon, Hattiesburg
Secretary

THE INCIDENCE OF INJURIES TO THE FACE AND HEAD OCCASIONED BY THE AUTOMOBILE WITH SUGGESTIONS AS TO PREVENTION
Fletcher D. Woodward, Charlottesville, Virginia

BONE AND JOINT TRAUMA RESULTING FROM AUTOMOBILE ACCIDENTS
W. Griffin Bland, Gulfport

HEAD INJURIES
Charles L. Neill, Jr., Jackson

THORACIC TRAUMA
William G. Pace, Columbus, Ohio

AUTOMOTIVE INJURY AND DEATH: AMA'S PROGRAM OF PREVENTION
Mr. Howard N. Schulz, Chicago, Illinois

ELECTION OF 1963 SECTION OFFICERS
The Chairman Presiding (Only registered members of the section may vote)

SECTION ON EYE, EAR, NOSE AND THROAT



DR. WILKINS

Wednesday, May 9, 1962
Rose Room
Beginning at 2:00 p.m.

William T. Wilkins, Clarksdale
Chairman

Emmett M. Herring, Hattiesburg
Secretary

PRACTICAL APPLICATIONS OF BASIC PRINCIPLES IN PLASTIC LID SURGERY
Alston Callahan, Birmingham, Alabama

TUMORS OF THE LARYNX
Francis E. LeJeune, Jr., New Orleans, Louisiana

RECENT ADVANCES IN OTOLOGIC SURGERY
Ralph Sneed, Jackson

MEDICAL OBSERVATIONS IN CONTACT LENS PATIENTS
John J. White, Jackson

ELECTION OF 1963 SECTION OFFICERS
The Chairman Presiding (Only registered members of the section may vote)

SECTION ON OBSTETRICS AND GYNECOLOGY

Thursday, May 10, 1962
Silver Room
Beginning at 9:00 a.m.

Michael Newton, Jackson
Chairman

Blanche Lockard, Jackson
Secretary



DR. NEWTON

OBSTETRICAL MANAGEMENT OF A PATIENT WITH AN EVENTRATION OF THE DIAPHRAGM

H. Lamar Gillespie, Hattiesburg

THE TREATMENT OF THE PELVIC PRESSURE SYNDROME

James L. Royals, Jackson

URINARY TRACT FISTULAS

John J. Murphy, Philadelphia, Pennsylvania

PULMONARY HYPERTENSION FOLLOWING PELVIC THROMBOPHLEBITIS—SURGICAL MANAGEMENT

Lois M. Mosey, Jackson

THE ENDOMETRIUM AND FERTILITY

Robert W. Noyes, Nashville, Tennessee

ELECTION OF 1963 SECTION OFFICERS

The Chairman Presiding (Only registered members of the section may vote)

SECTION ON GENERAL PRACTICE



DR. HOWELL

Thursday, May 10, 1962
Victory Room
Beginning at 9:00 a.m.

John B. Howell, Jr., Canton
Chairman

William E. Lotterhos, Jackson
Secretary

TREATMENT OF CHRONIC LEG ULCERS
Paul B. Brumby, Lexington
RAPID RELIEF OF BACKACHE
Guy T. Vise, Meridian
TRANSFUSION REACTIONS
Kenneth M. Heard, Jackson
GALLSTONE ILEUS
Aubrey V. Beacham, Magnolia
RECENT ADVANCEMENT IN THE TREATMENT OF INTESTINAL PARASITIC INFECTIONS
J. Clyde Swartzwelder, Ph.D., New Orleans, Louisiana
ELECTION OF 1963 SECTION OFFICERS
The Chairman Presiding (Only registered members of the section may vote)

SECTION ON PREVENTIVE MEDICINE



DR. HOWELL

Thursday, May 10, 1962
Parlor A
Beginning at 9:00 a.m.

Percy T. Howell, Forrest
Chairman

W. E. Riecken, Kosciusko
Secretary

RESPONSIBILITIES OF HEALTH OFFICERS IN THE AREA OF CHRONIC DISEASE CONTROL
Claire F. Ryder, Washington, D. C.
VIRUS DISEASES—CRIPPLING EFFECTS AND RECENT RESEARCH
Daniel Bergsma, New York, New York
PSYCHOLOGICAL TESTING
Dorothy N. Moore, Ph.D., Jackson
THE ZOONOSES—THEIR OCCURRENCE, EPIDEMIOLOGIC PATTERN AND SIGNIFICANCE IN MISSISSIPPI
Robert L. Watson, D.V.M., Jackson
ELECTION OF 1963 SECTION OFFICERS
The Chairman Presiding (Only registered members of the section may vote)

ESSAYISTS



Dr. Bergsma

Daniel Bergsma, M.D., Trenton, New Jersey. Associate Director of Medical Care, The National Foundation. Medical Education: Yale University School of Medicine, 1936. Diplomate, American Board of Preventive Medicine.



Dr. Callahan

Alston Callahan, M.D., Birmingham, Alabama. Medical Education: Tulane University School of Medicine, 1933. Diplomate, American Board of Ophthalmology.



Dr. Cecil

Russell L. Cecil, M.D., New York, New York. Professor Emeritus, Department of Clinical Medicine, Cornell University Medical School. Consulting Medical Director, The Arthritis and Rheumatism Foundation. Medical Education: Medical College of Virginia, 1906. Diplomate, American Board of Internal Medicine.



Dr. Fister

George M. Fister, M.D., Ogden, Utah. President-elect, American Medical Association. Medical Education: Rush Medical College, 1918. Diplomate, American Board of Urology.



Dr. Ingram

Alvin J. Ingram, M.D., Memphis, Tennessee. Associate Professor, Department of Orthopedic Surgery, University of Tennessee College of Medicine. Medical Education: University of Tennessee College of Medicine, 1939. Diplomate, American Board of Orthopedic Surgery.

Ted F. Leigh, M.D., Atlanta, Georgia. Professor, Department of Radiology, Emory University School of Medicine. Medical Education: Emory University School of Medicine, 1938. Diplomate, American Board of Radiology.



Dr. Leigh



Dr. LeJeune

Francis E. LeJeune, Jr., M.D., New Orleans, Louisiana. Medical Education: Tulane University School of Medicine, 1953. Diplomate, American Board of Otolaryngology.

Luther A. Longino, M.D., Boston, Massachusetts. Clinical Associate Professor, Department of Surgery, Harvard Medical School. Medical Education: University of Arkansas Medical School, 1935. Diplomate, American Board of Surgery.



Dr. Longino



Dr. Murphy

John J. Murphy, M.D., Philadelphia, Pennsylvania. Associate Professor of Urology and Director, Division of Urology, Graduate Hospital and Graduate School, University of Pennsylvania School of Medicine. Medical Education: University of Pennsylvania School of Medicine, 1945. Diplomate, American Board of Urology.

Robert W. Noyes, M.D., Nashville, Tennessee. Professor and Chairman, Department of Obstetrics and Gynecology, Vanderbilt University School of Medicine. Medical Education: University of California School of Medicine, 1943. Diplomate, American Board of Obstetrics and Gynecology.



Dr. Noyes

ESSAYISTS



DR. PACE

WILLIAM G. PACE, M.D., Columbus, Ohio. Assistant Professor of Surgery, Department of Surgery, Ohio State University Hospital. Medical Education: University of Pennsylvania School of Medicine, 1952. Diplomate, American Board of Surgery.



DR. RYDER

CLAIRE F. RYDER, M.D., Washington, D. C. U. S. Public Health Service. Medical Education: Tufts University School of Medicine, 1943.



MR. SCHULZ

HOWARD N. SCHULZ, Chicago, Illinois. Secretary, AMA Committee on Medical Aspects of Automotive Safety. Education: Western Illinois University, 1941.



DR. SIMONS

DAVID G. SIMONS, M.D., Brooks Air Force Base, Texas. Chief, Bioastronautics Branch, Department of Space Medicine, U.S.A.F. School of Aviation Medicine. Medical Education: Jefferson Medical College, 1946. Diplomate, American Board of Preventive Medicine.



DR. STAPP

JOHN P. STAPP, M.D., Ph.D., Brooks Air Force Base, Texas. Special Assistant in Aerospace Medicine, U.S.A.F. Aerospace Medical Center. Medical Education: University of Minnesota Medical School, 1944. Graduate Studies: University of Texas, 1940. Diplomate, American Board of Preventive Medicine.

JOHN C. STENNIS, U. S. Senator, Mississippi. Member, Senate Aeronautical and Space Sciences Committee and Senate Armed Services Committee. Chairman, Senate Military Preparedness Subcommittee.



SEN. STENNIS



DR. STRUGHOLD

HUBERTUS STRUGHOLD, M.D., Ph.D., Brooks Air Force Base, Texas. Professor and Chief, Department of Space Medicine, U.S.A.F. Aerospace Medical Center. Medical Education: University of Wuerzburg, Wuerzburg, Germany, 1923. Graduate Studies: University of Muenster, Muenster Germany, 1922.

J. CLYDE SWARTZWELDER, Ph.D., New Orleans, Louisiana. Professor and Chairman, Department of Tropical Medicine and Medical Parasitology, Louisiana State University School of Medicine.



DR. SWARTZWELDER



DR. WOODWARD

FLETCHER D. WOODWARD, M.D., Charlottesville, Virginia. Clinical Professor of Otolaryngology, Department of Otolaryngology, University of Virginia Hospital. Medical Education: University of Virginia School of Medicine, 1919. Diplomate, American Board of Otolaryngology.

WOMAN'S AUXILIARY TO THE MISSISSIPPI STATE MEDICAL ASSOCIATION

39th Annual Session
Hotel King Edward
May 7-9, 1962



MRS. EGGER

OFFICERS

MRS. JOHN G. EGGER, Drew
PRESIDENT

MRS. A. T. TATUM
PRESIDENT-ELECT



MRS. TATUM

ANNUAL SESSION CHAIRMEN

MRS. RAYMOND F. GRENFELL
Jackson
General Chairman

MRS. JAMES L. ROYALS
Jackson
General Co-Chairman

MRS. T. M. DAVIS
Jackson
Publicity

MRS. D. J. VAN LANDINGHAM
MRS. G. D. PURVIS
Jackson
Luncheon

MRS. ELMER J. HARRIS
Jackson
Decorations

MRS. J. P. MELVIN, JR.
MRS. D. T. BROCK, JR.
Jackson
Transportation

MRS. ROSS F. BASS
MRS. RAYMOND S. MARTIN, JR.
Jackson
Registration

Monday, May 7, 1962

12:00 noon "Dutch Treat" Luncheon
Capital City Club, Hotel Walthall

3:00-5:00 p.m. Registration, Mrs. Ross F. Bass and Mrs. Raymond S. Martin, Chairmen
Lobby, King Edward Hotel
Arcade, Hotel Heidelberg

4:30 p.m. Preconvention Executive Board Meeting
Walnut Room, King Edward

Tuesday, May 8, 1962

7:30-8:30 a.m. Mrs. John G. Egger, Continental Breakfast for Auxiliary Members
Coronet Room, King Edward

8:00-3:00 p.m. Registration
Lobby, King Edward Hotel
Arcade, Hotel Heidelberg

8:30 a.m. General Session, Mrs. John G. Egger, Presiding
Coronet Room, King Edward Hotel

Invocation
Mrs. D. Tumminello, Cleveland

Membership Pledge
Mrs. Joseph B. Rogers, Oxford

Address of Welcome
Mrs. David B. Wilson, Jackson

Response
Mrs. Glen T. Pearson, Hattiesburg

Presentation of Convention Chairman
Mrs. Raymond F. Grenfell

Presentation of President-elect
Mrs. A. T. Tatum, Petal

Introductions

Greetings from Lawrence W. Long, M.D.
President, MSMA

Greetings from C. P. Crenshaw, M.D.
President-elect, MSMA

Greetings from A. Street, M.D.
Auxiliary Advisory Chairman, MSMA

Report of AMA Auxiliary
Mrs. T. A. Baines, Jackson

Report of SMA Auxiliary
Mrs. George W. Owen, Jackson

Greetings from SMA Auxiliary
Mrs. Stanley A. Hill, Corinth

Memorial Service
Mrs. H. C. Ricks, Jackson

Roll Call

Minutes

Recommendations of the Board

Other Business

Unit Presidents' Reports
Outstanding Program or Project

President's Report
Mrs. John G. Egger, Drew

Credentials and Registration
Mrs. Ross F. Bass, Jackson

Report of the Nominating Committee
Mrs. Lee R. Reid, Jackson

Election of Officers

Appointment of Delegates to AMA Auxiliary

Courtesy Resolutions
Mrs. James T. Thompson, Moss Point

Adjournment

AUXILIARY

12:30 p.m. Luncheon
Crown Room, King Edward Hotel
Mrs. David J. Van Landingham and Mrs. George D. Purvis, Chairmen
Mrs. John G. Egger, Presiding
Honoring Mrs. Robert D. Croom, Jr., Maxton, N. C., Director, Woman's Auxiliary to the AMA
Invocation
Mrs. Lee R. Reid, Jackson
Introductions
Greetings from the AMA Auxiliary
Mrs. Robert D. Croom, Jr., Maxton, N. C.
Installation of Officers for 1962-63
Mrs. Croom
Presentation of Gavel and Pin
Response of Incoming President
Mrs. A. T. Tatum, Petal
Presentation of Past President's Pin
Mrs. R. Mayo Flynt, Meridian
AMEF Awards
Mrs. Arthur E. Brown, Columbus
Announcements
Adjournment

2:30 p.m. Postconvention Executive Board Meeting
Coronet Room, King Edward Hotel
Mrs. A. T. Tatum, Petal, Presiding

Wednesday, May 9, 1962

7:30 a.m. Past Presidents' Breakfast
Walnut Room
Mrs. Lee R. Reid, Jackson, Presiding

8:00-5:00 p.m. Registration
Victory Foyer—Lounge Area, Hotel Heidelberg

9:00 a.m. Symposium on Space Medicine
Victory Room, Hotel Heidelberg

1:30 p.m. House and Garden—"Floral Treatment of Fauna"
Coronet Room, King Edward Hotel
Mrs. John B. Howell, Jr., Canton

2:30 p.m. Tour and Tea—Mynelle's Gardens
Meet King Edward Garage, transportation furnished by Central Medical Auxiliary
Mrs. Charles L. Neill, Jr., and Mrs. W. L. Crouch, Chairmen

OTHER MEETINGS

MISSISSIPPI ASSOCIATION OF PATHOLOGISTS

Hotel King Edward
Monday, May 7, 1962

LAWSON C. COSTLEY, Tupelo, *President*
ROBERT S. COOKE, Hattiesburg, *President-elect*
WILLIAM P. FEATHERSTON, Jackson, *Secretary-Treasurer*

9:00 a.m. Scientific Program, Creole Room
Seminar, Obstetrical and Gynecological Pathology
Correlative Clinicopathological Presentation of Selected Cases
William E. Jaques, Oklahoma City, Oklahoma

12:00 noon Luncheon Recess

2:00 p.m. The Erythrocyte Sedimentation Test: Its Biophysics, Methods of Performance, and Reporting
Leo J. Scalon, Natchez
The Chick Embryo: A Biologic Indicator of Vasopressor Agents
Robert R. Gatling, Jackson
Some Interesting Aspects of Atypical Chromogenic Acid-Fast Bacteria
William D. Atchison, Jackson
A Five Year Survey of Surgically Removed Pulmonary Coin Lesions
Henry H. Webb, Jackson
Electron Microscopy, Clinical Application
Roger B. Arhelger, Jackson
Helpful Hints

5:00 p.m. Business Meeting

6:30 p.m. Fellowship Hour, Coronet Room

7:00 p.m. Annual Banquet, Coronet Room

MISSISSIPPI UROLOGICAL ASSOCIATION

Hotel Heidelberg
Monday, May 7, 1962

JULIAN WIENER, Jackson, *President*
SIDNEY O. GRAVES, Natchez, *President-elect*
GERALD WESSLER, Gulfport, *Secretary*

2:00 p.m. Scientific Program, Parlor B
Scientific Essay, John J. Murphy, Philadelphia, Pa.

3:00 p.m. Pyelogram Hour

4:00 p.m. Case Presentations

4:30 p.m. Business Meeting

6:30 p.m. Annual Banquet, Parlor A

OTHER MEETINGS

AMERICAN COLLEGE OF CHEST PHYSICIANS, MISSISSIPPI CHAPTER

Hotel King Edward
Monday, May 7, 1962

ROBERT E. SCHWARTZ, Hattiesburg, *AACP State Governor*
THURMAN T. JUSTICE, JR., Gulfport, *President*
LEE R. REID, Jackson, *Secretary*

4:00 p.m. Scientific Program, Gold Room

Physiologic Response to Extremes of Ventilation
Myra D. Tyler, Jackson
Clinical Evaluation of Tris-Buffer and Analeptics in Patients With Chronic Respiratory Acidosis
Thomas H. Arrington, Jackson
Pulmonary Resection for Tuberculosis in the Aged
Jesse L. Wofford, Jackson
Ten Years Experience in Treating Myocardial Infarction Without Anticoagulants
Clifford Tillman, Natchez

5:00 p.m. Fellowship Hour

MISSISSIPPI ORTHOPAEDIC SOCIETY

Hotel King Edward
Tuesday, May 8, 1962

THOMAS C. TURNER, Jackson, *President*
JAMES C. BASS, Laurel, *Vice President*
JOHN G. CADEN, Jackson, *Secretary*

12:30 p.m. Luncheon, Walnut Room

Developmental Abnormalities of Lower Extremities in Children
A. J. Ingram, Memphis, Tennessee
Experimental Observation of Degenerative Changes in the Knee Joints of Rats With and Without Prednisolone Therapy
Donald T. Imrie, Vicksburg
The Importance of Measuring the Inter-Pedicular Spaces of the Spine
James C. Bass, Laurel

OTHER MEETINGS

MISSISSIPPI SOCIETY OF ANESTHESIOLOGISTS

Members of the Mississippi Society of Anesthesiologists invite all association members to their annual meeting at Jackson on May 5. The speaker will be Carl Wasmuth, M.D., LL.B., a Cleveland, Ohio, anesthesiologist. Meeting details may be obtained from the officers who are Drs. Leonard W. Fabian, Jackson, president; M. Ney Williams, Jackson, vice president; and Curtis W. Caine, Jackson, secretary.

AMERICAN COLLEGE OF SURGEONS

The Mississippi Chapter, American College of Surgeons, will sponsor a luncheon for Fellows on May 7 in the Walnut Room, Hotel King Edward, at 12:00 noon. Officers are Drs. Jack V. King, Jackson, president; William L. Thornton, Meridian, president-elect; and Edward C. Hamilton, Gulfport, secretary.

MISSISSIPPI SOCIETY OF INTERNAL MEDICINE

Internists will meet at the University of Mississippi School of Medicine, Room 3-A, on May 7 at 4 p.m. for the American Society of Internal Medicine annual meeting. Dr. Russell L. Cecil, New York, will address the group on "Difficulties Encountered in Treating an Arthritic." Officers are Drs. Willard H. Boggan, Jr., Jackson, president; Thurman T. Justice, Jr., Gulfport, president-elect; and Frederick E. Tatum, Hattiesburg, secretary. Dr. S. H. McDonnieal, Jr., Jackson, is program chairman.

OLE MISS CLASS OF '42

Members of the University of Mississippi Class of 1942 will meet in reunion on May 7 in the Club Room, Hotel King Edward, at 6:30 p.m. for a fellowship hour and banquet. Program chairman is Dr. Wendall B. Holmes, McComb. Details may be obtained from Mr. Charles William Price, Medical Alumni Secretary, University of Mississippi School of Medicine, Jackson.

TENNESSEE MEDICAL ALUMNI

University of Tennessee medical alumni will enjoy a fellowship hour and banquet on May 7, the Heidelberg Roof, Hotel Heidelberg, beginning at 6:30 p.m. The banquet will be served at 7:30 p.m. Dr. Willard H. Boggan, Jr., Jackson, is chairman.

OTHER MEETINGS

TULANE MEDICAL ALUMNI

Medical alumni of the Tulane University School of Medicine will meet for a fellowship hour and banquet at 6:30 p.m. on May 7 in the Silver and Rose Rooms, Hotel Heidelberg. Dr. William B. Wiener, Jackson, is chairman.

FIFTY YEAR CLUB LUNCHEON

Members of the Fifty Year Club will be honored at a luncheon on May 8 in the Silver Room, Hotel Heidelberg, at 12:00 noon. Dr. H. H. McClanahan, Jr., Columbus, chairman of the association's Board of Trustees, will preside.

MISSISSIPPI RADIOLOGICAL SOCIETY

Members of the Mississippi Radiological Society will enjoy a luncheon and a scientific essay by Dr. Ted Leigh, Atlanta, Georgia, on May 8, in the Gold Room, Hotel King Edward, at 12:00 noon. Dr. Jack K. Goodrich, secretary-treasurer of the society, is chairman.

MISSISSIPPI MEDICAL ALUMNI

Ole Miss medical alumni will meet at the Hotel Heidelberg on May 8 in a varied business-social program. All meetings will be held on the Heidelberg Roof. Registration will open at 8:00 a.m. and the Nominating Committee will meet at 12:30 p.m. A combined Board of Directors and general business meeting is scheduled for 4:30 p.m. Evening sessions emphasize the social side with a fellowship hour at 6:30 p.m. and a smorgasbord at 7:30 p.m., Dr. S. Lamar Bailey, Kosciusko, presiding. Dancing will follow the dinner. Details and tickets may be obtained from Mr. Charles William Price, Medical Alumni Secretary, University of Mississippi School of Medicine, Jackson.

PAST PRESIDENTS BREAKFASTS

Past presidents of the Mississippi State Medical Association and the Woman's Auxiliary, respectively, will enjoy breakfast meetings on the morning of May 9. MSMA past presidents will meet at 7:30 a.m. in the Hotel Heidelberg's Parlor A. Auxiliary past presidents will meet at 8:00 a.m. in the Walnut Room, Hotel King Edward.

OTHER MEETINGS

FLYING PHYSICIANS ASSOCIATION

Mississippi members of the Flying Physicians Association and non-member physicians interested in private flying will enjoy a luncheon on May 9 in the Walnut Room, Hotel King Edward, at 12:00 noon. Officers are Drs. James L. Royals, Jackson, president; Ben N. Walker, Jr., Jackson, president-elect; and Curtis W. Caine, Jackson, secretary-treasurer.

EENT LUNCHEON

The Section on Eye, Ear, Nose, and Throat will sponsor its annual luncheon on May 9 in the Silver Room, Hotel Heidelberg, at 12:00 noon. The formal section program will begin in the Rose Room at 2:00 p.m.

SOUTHERN MEDICAL ASSOCIATION

An invitational breakfast of Southern Medical Association officials will be held May 10 on the Heidelberg Roof, Hotel Heidelberg, at 7:30 a.m. Dr. Guy T. Vise, SMA councilor for Mississippi, is host.

MISSISSIPPI OB-GYN SOCIETY

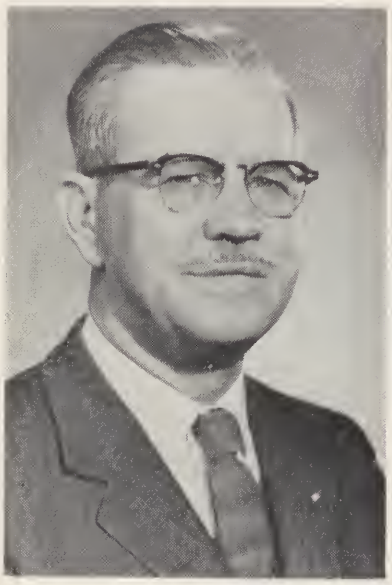
The Mississippi Ob-Gyn Society will meet in the Rose Room, Hotel Heidelberg, on May 10 at 11:30 a.m. for a fellowship hour and luncheon at which cases of maternal deaths will be presented by the MSMA Committee on Maternal and Child Care. Tickets for the luncheon will be available at the main registration desk. Officers are Drs. Blanche Lockard, Jackson, president; Frank L. Butler, Jr., McComb, president-elect; and Chester H. Lake, Jackson, secretary-treasurer.

MSMA COMMITTEE ON MATERNAL AND CHILD CARE

Members of the MSMA Committee on Maternal and Child Care will present and discuss cases from the committee's maternal mortality study at the Mississippi Ob-Gyn Society's luncheon and scientific meeting on May 10 in the Rose Room, Hotel Heidelberg, 12:00 noon.

MISSISSIPPI ACADEMY OF GENERAL PRACTICE

Members of the Mississippi Academy of General Practice will enjoy a luncheon on May 10, the Heidelberg Roof, Hotel Heidelberg, at 12:00 noon. The program will include a prominent speaker. Officers are Drs. Guy T. Vise, Meridian, president; Frank K. Tatum, Tupelo, vice president; J. Roy Bane, Jackson, president-elect; and Max L. Pharr, Jackson, secretary.



The President Speaking

'Nothing Very Good or Very Bad'

LAWRENCE W. LONG, M.D.
Jackson, Mississippi

THERE'S AN OLD ARMY SAYING that ". . . nothing very good or bad lasts very long." Perhaps it's a matter of nostalgia that this should occur as a lead for your president's page but last month, I retired as a colonel in the U. S. Army Medical Corps reserve and next month, I shall have concluded my tenure as your 1961-62 president. Thus, the old Army saw may fit the needs of all in considering this chronology.

But for your president, it's all in the "very good" department and certainly, the year didn't seem to "last very long." Nobody need be reminded that it's been an active year for all of us. Never before in its 106 years of history has our MSMA been called upon for so much service and so much action. And the results speak eloquently for themselves.

If I could be able, I'd like to talk personally to every member of the association and express my appreciation for the vigorous, positive support which Mississippi physicians have given their profession while I had the privilege of being at the helm. First, I make this expression to *all* members and direct a full measure of appreciation to the grassroots where, obviously, it properly belongs.

It is difficult to say enough good things on one page about our Board of Trustees and other general officers. Their keen perspective, wise insight, mature judgment, and loyalty to MSMA and their profession make this association about the most fortunate such organization in the nation. The members of the nine councils and numberless committeemen deserve laudation and appreciation. The permanent party, as it were, is the backbone of MSMA.

At the local level, the heroes on the firing line are the component medical society officers and committee workers. The ladies of the Auxiliary are mentioned last only for emphasis upon the great job they are doing for their physician-husbands.

MSMA is a marvelous team, viable, able, and dedicated. Any doctor of medicine may have pardonable pride in claiming his share in it. ★★★

JOURNAL OF THE
MISSISSIPPI STATE
MEDICAL ASSOCIATION

Volume III, Number 4

April 1962

EDITORIALS

The Practitioner's Helping Hand

I

American institutions of higher learning are competing as never before for bright, promising students and the competition is getting tougher. Especially is this true of our medical schools. There are today fewer applicants in medicine than there were 15 years ago but the combined classes of 1962 will be nearly a third larger than those of 1947. Why is this true and what should individual physicians do about it, if anything?

Higher education has gained unbelievable momentum in the decade and a half since World War II's economic and social impact was first felt. A college degree isn't simply something desired by more young people than previously—it's a necessity of the present age. The boom in science related to nuclear physics, space technology, electronics, and a host of fields useful to industry and defense is reaching out and attracting young Americans.

Where medicine once represented a pinnacle in educational challenge, there are now literally dozens. And the nonmedical disciplines are often heavily subsidized with a variety of scholarship opportunities which exercise no little influence upon the final career choice of our young people. It has even been suggested that the specter of socialism may deter some from medicine.

II

The Association of American Medical Colleges reports that the number of students accepted for enrollment in U. S. medical schools in 1960-61 *increased the total by only 48 over the preceding year.* And this addition of only 1 per cent was totally due to the opening of the new University of Kentucky College of Medicine!

Continues AAMC: "In contrast, the total number of applicants dropped to 14,397, the fourth such decrease in number since 1956-57, and a loss of approximately 4 per cent from 1959-60. In view of the continued and growing actions that other disciplines offer, it is not unlikely that the current trend will continue."

These are disquieting words but they are solidly supported by the facts. In 1947, nearly 19,000 young Americans submitted over 56,000 applications for admission to medical schools and more than 6,500 were accepted. In 1960, only slightly more than 14,000 sought admission with 54,000 applications and 8,500 were accepted. Statistics for intervening years validate the downward curve.

III

Spokesmen for medical education sum it up this way: "The critical question remains one of projecting current short range trends in the medical manpower pool. Presently, both short and long range trends presage difficulty. A number of options for intervention by the schools and interested organizations exist, however. These include active recruitment efforts at both high school and college levels, informal and formal procedures for the better distribution of available talent,

and increasing present and new sources of financial aid to medical students."

Recruitment of apt medical students is a task in which physicians can help. Component medical societies can organize career day programs and members can counsel young people with respect to choosing a medical career. Kits and program materials are available from your state medical association.

Headway is being made in financial assistance, too. The American Medical Association student loan program has been implemented through participating banks. More and more tuition and assistance scholarships are becoming available. Medicine is realizing that to get the best students it must compete with the glamor disciplines of the space age.

IV

Expansion of medical education facilities is progressing in a sensible, sound manner. Our schools recognize that little can be gained from mere quantitative increases of student bodies unless qualitative considerations in physical plant, faculty, and operating funds come first. Again, physicians have an opportunity to help in many ways. They are realizing the value of contributing their means through the American Medical Association Education and Research Foundation, through support of medical school programs, and through concerted action in medical organization.

And physicians realize, too, that another Lister, Pasteur, Halstead, Banting, Cushing, or Fleming may be a high school senior at the crossroads. He and medicine need the practitioner's help. We each owe something to society, given voluntarily. Both medicine and we will be better for this contribution.—W.M.D.

Never in a Million Years!

No! Never! Never in a million years!

And what's causing all this frothing at JOURNAL MSMA's mouth? Just about the lowest insult, tendered in unbelievably brazen effrontery, that a respected professional society ever received.

The editor of the *Chinese Medical Journal,* Sun Ming-chen, who is holed up in Peking, actually wrote JOURNAL MSMA asking for an exchange subscription, saying that ". . . you may be interested in international scientific and cultural exchange and New China's advances in the field of medicine. . ."

This calm voice is a deceptive mask over the ugly face of international communism in its most despicable form—not that it has any other. This is the voice of communism responsible for more than 70,000 American casualties in the bootless Korean War. This is the voice of subversion in Tibet, Laos, and Cuba.

Exchange with the Chinese reds? Never, absolutely never.

JOURNAL MSMA goes all over the free world but it will never be deliberately sent behind the iron curtain. Knowledge is contraband in the cold war and JOURNAL MSMA will have no part of aiding and comforting an enemy sworn to the destruction of the United States. As a matter of fact, we wouldn't even *sell* the mainland comrades a subscription at any price.

So at best, the letter is a philatelic curiosity and at worst, a shameless venture in brazen deceit. And if the Chinese Medical Association wrote any other medical journals in these United States, we hope that the response is parallel to ours:

No! Never! Never in a million years!—R.B.K.



Copyright 1962, Mississippi State Medical Association

"How does my circulatory system work? Well, all right, I think. I just tell one of the girls and it circulates all over town."

Book Reviews

Clinical Disturbances of Renal Function. By Abraham G. White, M.D., associate visiting physician and chief of the Renal Disease Clinic, Queens Hospital Center, Jamacia, N. Y. 468 pages. Philadelphia: W. B. Saunders Company, 1961. $10.50.

The author says in his preface: "This book is meant for the practicing physician confronted with a patient whose kidneys are not functioning normally, either because of intrinsic renal disease or because of one of the many physiological disturbances that may impinge upon the kidneys." From this statement, he progresses to organize a new book which is clear, logical, up-to-date, and fairly comprehensive.

The author states that the book is designed to answer three questions: (1) Is the patient suffering from renal dysfunction? (2) What is the exact nature of the malfunctioning? (3) What can be done to alleviate, or correct, the condition? The following 439 pages, made up of sixteen chapters and three appendixes, fairly well answer these three questions. In doing so, he deals with practically all aspects of renal pathology and physiology.

The difference in this book and many others on the same subject is Dr. White's approach to the subject matter. To begin with, the text is written in clinical language and the terms are clearly and simply defined. Discussions are easily followed since they are developed step by step. The illustrations are good. Most of them are schematic and easily understood. Laboratory diagnosis is put into perspective as an aid to clinical management of the patient.

The one part of the book that is weak is the section of appendixes. The three appendixes do not give enough detailed information to justify their presence. They should either have contained a fuller explanation of their alleged subject matter or have been omitted altogether. Basically, they add little to the book and their absence would not have damaged the text.

This book is of definite value to anyone interested in renal function. It achieves the happy medium, so seldom found, between the "too elementary" and the "too profound." Whether general practitioner or specialist, the physician would be well advised to add this book to his personal library.

SIDNEY O. GRAVES, M.D.

Introduction to Anesthesia: The Principles of Safe Practice. Edition 2. By Robert D. Dripps, M.D., professor and chairman, Department of Anesthesiology, Schools of Medicine, University of Pennsylvania; James E. Eckenhoff, M.D., professor of anesthesiology, Schools of Medicine, University of Pennsylvania, and Leroy D. Vandam, M.D., clinical professor of anesthesia, Harvard Medical School. Line drawings by Leroy D. Vandam, M.D. 413 pages. Philadelphia: W. B. Saunders Company, 1961. $8.00.

This treatise on the broad fundamentals of anesthesia is clearly conceived and written. Specific clinical applications are given to enable the student and anesthesia resident to practice safe and intelligent anesthesia.

The text gives an organized approach to anesthesia management. Some of the topics considered are the preanesthetic period, the day of operation, during operation, and the postoperative period. Separate sections are devoted to resuscitation, the anesthesiologist as a consultant, and other special topics.

I found the section on intravenous therapy and the description of the new cardiac massage technique especially valuable. The section on muscle relaxants, however, contains a statement that I would take exception to. The authors write: "We also believe it safer to avoid use of the continuous intravenous infusions of muscle relaxants, preferring to rely upon intermittent injections. In our experience less postoperative respiratory depression is seen if this is done." My experience has been that the administration of succinylcholine in a continuous drip can help the anesthesiologist to obtain better control of relaxation and to avoid deep anesthesia. However, I also feel that inexperience and lack of good clinical judgement are often covered up by using the continuous drip method for the administration of succinylcholine.

The section on the recovery room contains many helpful suggestions for the anesthesia staff of the many small hospitals located in isolated

areas. Too much stress cannot be placed on the establishment and intelligent management of this necessary adjunct to the safe practice of anesthesia.

The section on surgeon-anesthesiologist relationships places much emphasis on the proper attitude of both surgeon and anesthesiologist in regard to the safe conduct of the patient through the contemplated surgery. The surgeon and the anesthesiologist are part of a surgical team whose primary function is to accomplish the safest surgical and anesthetic management of the the patient that is possible.

Summarizing my opinion on this book, I found many helpful suggestions, much to stimulate and renew my interest in many aspects of the practice of anesthesia. I plan to use this book as a reliable and concise guide in the conduct of my anesthesiology practice.

HENRY N. WESTHAFER, M.D.

LETTERS

SIRS: Your editorial, "Let's Talk Mississippi Medical Training," in February 1962 JOURNAL MSMA was extremely interesting. I feel sure that others were as surprised as I to learn that Mississippi ranked third in the nation in the average per cent of male college graduates receiving medical degrees between 1950 and 1959.

The figures quoted for the various colleges in the state were also most revealing. In addition to these figures, however, I think it would also be very interesting to learn the per cent of male graduates who attained medical degrees by colleges for the period. Those of us who graduated from Millsaps College take considerable pride in the fact that our alma mater has consistently led not only the state but most of the other schools in the South.

EARL T. LEWIS, M.D.
Evansville, Indiana

Glad to oblige: Mississippi's Board of Trustees of Institutions of Higher Learning says exact figures on male graduates during the years 1950-59 are not available for a variety of reasons. Projections on class medians indicate that over the 10 year period, the individual institutional score on M.D.'s looks like this: Ole Miss, 7 per cent; Mississippi State University, 2 per cent; University of Southern Mississippi, slightly less than 1 per cent; Mississippi College, 6 per cent; and your alma mater, Millsaps College, led the league with 11 per cent.—The Editors.

PERSONALS

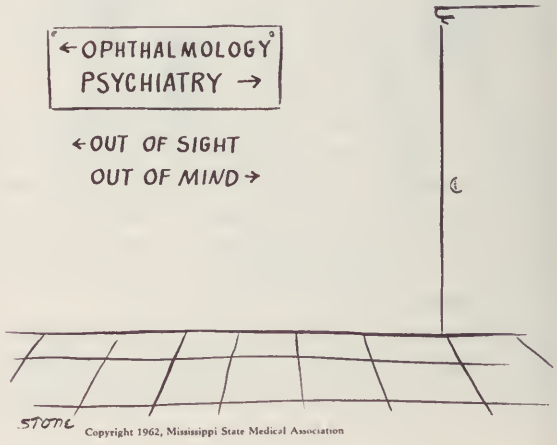
RAYMOND F. GRENFELL of Jackson was cited as the "Pride of Northside" in the *Northside Reporter's* Feb. 22 issue. Dr. Grenfell has served as chairman of the Medical Division of the United Givers Fund, as a member of the Board of Directors of the Family Service Association, and as chairman of the Hinds County Heart Council. At the present, he is serving as secretary and member of the Board of Directors of the Mississippi Heart Association. He is also working with the Jackson Symphony Orchestra Association as its president.

R. B. HARPER and W. T. HARPER of Fayette have announced the association of CLARENCE L. DELANY, formerly of Liberty, in the practice of general medicine.

CHARLES L. NEILL, JR., clinical associate professor of neurosurgery at the University of Mississippi School of Medicine, was named president-elect of the Southern Neurosurgical Society during the recent annual meeting. Dr. Neill served the scientific association as vice president in 1958 and as secretary from 1959-1961. The 160 member organization draws its membership from neurological surgeons in 16 states.

JACK STACY has been named a member of the Board of Directors of the Tupelo Rotary Club.

MARGARET P. VELLER of Natchez has been named for the second year as a member of the National Foundation's Health Scholarship Committee for Mississippi.



Copyright 1962, Mississippi State Medical Association

Mercury Capsule, Escape Tower, and Space Exhibits to Be Featured at 94th Annual Session

Mississippi physicians, Auxiliary members, and guests at the 94th Annual Session will have a once-in-a-lifetime educational opportunity when the nation's latest space hardware is brought to Jackson. Feature of the 1962 Scientific Exhibit will be the Mercury spacecraft, an operational duplicate of the vehicles used for the Glenn orbital flight and the Shepard and Grissom suborbital flights.

The National Aeronautics and Space Administration, cooperating with the association in sponsorship of the Symposium on Space Medicine set for May 9, will furnish the Mercury capsule and six related exhibits. This consolidated display will occupy more than 1,000 square feet in the main exhibit hall. The escape tower, a device carried in initial phases of Mercury launchings for safety in event of malfunction, will also be shown.



All systems "go!" The Mercury spacecraft is being hoisted atop the Atlas booster as the launch vehicle is readied for orbital flight. (Official NASA photo.)

The six associated exhibits include one on the suborbital flights first undertaken by NASA with astronauts Shepard and Grissom. Still another presentation will be on the astronauts themselves who include Cooper, Slayton, Schirra, and Carpenter in addition to those who have already participated in successful space flight. Two others will portray test flights with animals, one will emphasize engineering for maintaining human life in space, and the last is on the Apollo or moon flight project.

The U. S. Aerospace Medical Center will furnish three scientific exhibits on bioastronautics, each of which stresses medical aspects of man in space. All exhibits will be held over for public viewing after adjournment of the annual session. The space exhibits will be open to Mississippians May 11 and 12.

Working with the state medical association in the overall presentation of the Symposium on Space Medicine and the adjunctive exhibits are the U. S. Aerospace Medical Center, the U. S. Air Force School of Aviation Medicine, the National Aeronautics and Space Agency, and the Office of the Surgeon General of the U. S. Air Force. Mississippi's Senator John C. Stennis, a symposium speaker, is appearing in his role as a member of the Senate Committee on Aeronautical and Space Sciences.

The symposium will begin at 9:00 a.m. on Wednesday morning, May 9, when no other activities of the annual session are scheduled. Dr. C. G. Sutherland, Jackson, chairman of the Council on Scientific Assembly, will preside. Dr. Lawrence W. Long, association president, will keynote the symposium, after which Drs. Strughold, Stapp, Simons, and Senator Stennis will appear.

The special space exhibits will be open to registrants of the 94th Annual Session Tuesday, Wednesday, and Thursday, association spokesmen said.

Invitations to Space Symposium Are Available

A limited number of invitations to MSMA's Symposium on Space Medicine, May 9, will be available to association members for use in inviting nonmedical community leaders. This was the announcement of the Council on Scientific Assembly whose spokesmen estimate that about 500 such bids can be made available.

The symposium is one of the highlights of the 94th Annual Session, May 7-10, 1962, and will feature three internationally known physician-scientists and a member of the Senate Committee on Aeronautical and Space Sciences. They are Drs. Hubertus Strughold, John P. Stapp, David G. Simons, and Senator John C. Stennis. Symposium registrants will also view an actual Mercury MA-4 space capsule and special exhibits on bioastronautics.

"To obtain invitations for non-medical community leaders, MSMA members should write or call the executive offices," the announcement continued.

"Names of guests should be given so that badges for them may be prepared in advance. This will provide for automatic registration and prompt admittance to the meeting room."

No person can be admitted to the symposium without a badge, the announcement emphasized. Regular registration badges for members, physician guests, and Auxiliary members will be sufficient. Where possible, sponsors of invited nonmedical community leaders should accompany their guests.

When two or more physicians propose to invite the same nonmedical individual and the duplication is discovered in processing the requests for invitations, the first applicant will receive the bids. Invitations will be on formal panel cards, complete with mailing envelopes and a brief summary of suggestions for the sponsoring MSMA member.

VA Administrator Keynotes Dedication of State Center

The newly constructed Veterans Administration Center and Hospital, located on East Woodrow Wilson Boulevard in Jackson, was dedicated April 1. John S. Gleason, Washington, D. C., administrator of Veterans Affairs, presented the keynote address.

Also participating in the program were Dr. W. S. Middleton, VA chief medical director, and P. H. Brownstein, VA chief benefits director, and Walter R. Byrd, center director.

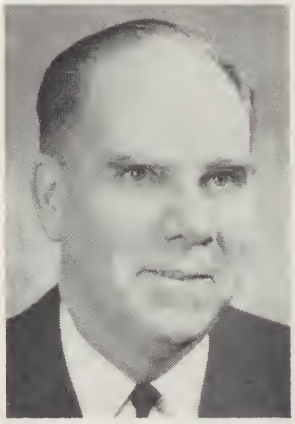
Dr. Lawrence W. Long, MSMA president, was the association's official representative to the dedication and a platform guest.

The hospital section of the center is designed to accommodate 500 patients. Four hundred and thirty of the beds are designated for general medical and surgical patients and 40 beds will accommodate pulmonary disease patients. The remaining 30 beds are designated for the treatment of patients with acute neuropsychiatric conditions.

Dr. Stanley Hill Named To Head Mid-South Assembly

Dr. Stanley A. Hill of Corinth, past president of MSMA, was named president-elect of the Mid-South Postgraduate Medical Assembly at the group's February meeting. Dr. Gilbert J. Levy of Memphis was elevated to the presidency.

A graduate of the University of Tennessee College of Medicine, Dr. Hill has practiced in Corinth 29 years. He is past president of the Alcorn County Medical Club and the Northeast Mississippi Medical Society. He was speaker of MSMA's House of Delegates for ten years. He is presently serving on the editorial board of the Southern Medical Association.



Dr. Hill

The Mid-South Postgraduate Medical Assembly, which succeeded the Tri-State Medical Association, was organized in 1883. The change in name came in 1931 when it became evident the Assembly was drawing physicians from more than the original three states. The Assembly convenes annually in Memphis during February. Its purpose is to provide the highest type of postgraduate instruction possible in a four day program.

Guest speakers for the 1962 meeting included Dr. Paul C. Bucy, professor of surgery, North-

western University; Dr. G. W. N. Eggers, professor of orthopaedic surgery, Orthopaedic Surgeon-in-Chief, Medical Branch Hospital, University of Texas; Dr. Benjamin Felson, professor and director of radiology, University of Cincinnati; Dr. George G. Finney, associate professor of surgery, Johns Hopkins University; Dr. Walter W. Fischer, associate professor of clinical surgery, New York University; Dr. Ralph W. Gause, associate professor, clinical and gynecological, Cornell Medical School; Dr. Benjamin R. Gendel, professor of medicine, Emory University School of Medicine, and Dr. Robert B. Greenblatt, professor of endocrinology, Medical College of Georgia.

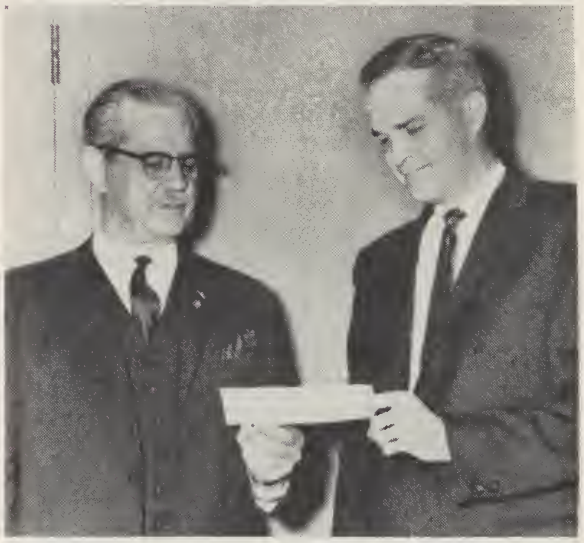
Also Dr. John W. Henderson, associate professor of ophthalmology, Mayo Foundation, University of Minnesota Graduate School; Dr. Joseph A. Johnston, pediatrician-in-chief, Henry Ford Hospital; Dr. L. E. January, professor of medicine, College of Medicine, State University of Iowa; Dr. Robert H. Kennedy, director of the Field Program of the Committee of Trauma of the American College of Surgeons; Dr. E. E. Muirhead, director of laboratories at Woman's Hospital in Detroit, Mich. and professor of pathology at Wayne University Medical School; Dr. Reed N. Nesbit, professor in charge of urology, University Hospital, Ann Arbor; Dr. John Cyril Peterson, professor and chairman, Department of Pediatrics, Marquette University; Dr. Bruce Proctor, associate clinical professor of otolaryngology, Wayne State University; Dr. Edward H. Reinhard, professor of medicine, Washington University School of Medicine, and Dr. John T. Reynolds, clinical professor of surgery, Illinois College of Medicine.

Diagnostic Standards Manual Available From MTA

The 11th edition of Diagnostic Standards and Classification of Tuberculosis has been published by the National Tuberculosis Association. The new addition, complete with color illustrations and a number of revisions to bring it into conformity with present-day practice, may be secured from the Mississippi Tuberculosis Association, P. O. Box 9865, Northside Station, Jackson.

Diagnostic Standards is used throughout the world in establishing and reporting the diagnosis and stages of tuberculosis. It is widely used also in medical schools and in hospitals for teaching purposes and is often referred to as the standard classification for legal and actuarial purposes throughout the country. Approximately 300,000 copies of this edition, the first since 1955, were distributed.

University Receives $9,304 In AMEF Funds



Dr. Lawrence W. Long, MSMA president, hands Dean Robert Q. Marston of the University of Mississippi School of Medicine a check for $9,304.06 from the American Medical Education Foundation. The amount is composed of $5,067.99 earmarked by donors for the University and $4,236.07 which was the school's share of undesignated funds. The money may be used by the University without restriction. Dr. W. E. Caldwell of Baldwyn was chairman of the state AMEF campaign which conducted the campaign.

Chiropractor Licensure Bill Killed by House

The House Committee on Public Health and Quarantine killed House Bill 344, the proposal to license and legalize chiropractic in Mississippi, on March 13. The action resulted from studies made on the controversial measure after testimony was received at open hearing on Feb. 27.

Following the heated hearings at which Mississippi physicians and chiropractors testified, the committee assigned HB 344, the chiropractic licensure bill, to a subcommittee for study.

Rep. Odie Trenor, committee chairman, said of the action: "During the hearing . . . on House Bill No. 344, proposing to license chiropractors

in the state of Mississippi, the evidence that was presented to the committee seems to need further study, and for that reason the bill has been referred to a subcommittee with a request from the chairman that extensive research be made in order to ascertain information that the committee feels it needs in order to give this bill final consideration.

"Due to the fact that this research and study will be deep and extensive, it is the opinion of the chairman that it will require much time.

"The committee desires to be in a position to justify whatever its final action might be. Hence this research and study."

MSMA testimony was presented by Dr. William E. Lotterhos, chairman of the Council on Legislation, and Dr. Lawrence W. Long, MSMA president. A complete text of their statements may be found on page 151. Dr. A. L. Gray, state health officer, spoke for the State Board of Health.

Testimony for the chiropractors was given by co-authors of the bill, Reps. Frank E. Shanahan, Warren County, and Alvin R. Patterson, Monroe County, and chiropractors Tom Lawrence, Meridian, and David Perkins, Jackson. Guest testifier for the chiropractors' case was Earl Rich of the Lincoln College of Chiropractic in Indiana. Two lay witnesses, Jackson businessman Roy Montgomery and Hinds County District Attorney Bill Waller, heartily endorsed the proposal. Ben Walley, attorney for the state chiropractors, introduced each witness and spoke for the measure.

Greenwood Physician Launches Home-Built Sailboat

A Greenwood physician recently launched his make-it-yourself 30-foot sailboat in the Yazoo River as an audience of several hundred persons looked on.

Dr. John M. Alford, Sr., MSMA member and past president of Delta Medical Society, estimates that he has spent 2,500 hours during the past five and one half years in the construction of the boat. The craft was designed 25 years ago for amateur boat builders by naval architect W. J. Crosby. It was especially planned for use in the Gulf or ocean area.

The vessel is a single mast boat fully rigged for sailing. It is built of board and batten construction with cypress planking and oak frames. Dr. Alford used local lumber and finished the material himself using hand tools and a Skil saw.

Weighing about eight tons with three tons of lead in the ballast, the boat is powered by a four cylinder Universal Marine motor. It also has a 44 foot long mast made of Sitka spruce. Inside there



Dr. John M. Alford, Sr., of Greenwood is shown in front of his home-built 30-foot boat just before he launched it in the Yazoo River.

is room for five persons to sleep. There are three cabins, a kitchen, and bath. The craft is equipped with an alcohol stove, ice box, and air conditioner.

The Mandala, as the boat is named, is Dr. Alford's second endeavor at boat building. His first resulted in an 18-foot sailboat which he used on nearby Grenada Lake. After he completed this two year project, he decided to go further and build the present vessel.

The amateur boat builder admits there were several mishaps during the construction. He had to melt and pour a ton of lead to mold the keel three times before the job was finally accomplished. The first setback occurred when the steel frame holding the melting pot became too hot and buckled and all the hot lead poured out. The second time he attempted to melt the lead, which had been carefully retrieved, the whole ton poured through a tiny nail hole and onto the ground.

Dr. Alford says his patients always knew where to find him during his free time and many of them came over the levee to get medical advice or a prescription—most often written on sand paper.

Dr. Alford's wife, Virginia, and his four children, John, Jr., Helen, Peter, and Timmy shared both his enthusiasm and effort on the five year project. They plan to take the boat to the Gulf in June, traveling down the Yazoo and Mississippi Rivers.

AHA Director to Address State Heart Association

The medical director of the American Heart Association, Dr. George Wakerlin, will speak at the annual dinner of the Mississippi Heart Association in the Heidelberg Hotel on April 5 at 7:30 p.m.

As is customary, MHA's yearly business meeting will be held in connection with the Cardiovascular Seminar at the University Medical Center April 4-6, which the Heart Association sponsors.

A full half-day program is planned, climaxed with the dinner and distinguished speaker at night. MHA members will gather at 12 noon in Crechale and Polles Restaurant.

The president, Gen. A. G. Paxton of Greenville, will bring his annual report before the group, and Dr. J. Manning Hudson will present the nominating committee's report. Election of officers, directors, and delegates will follow.

Dr. Lucien M. Ferris of Vicksburg, president-elect, will meet with his new board of directors meeting immediately following lunch. The afternoon session will get underway at 2 p.m. in the University Medical Center where members will hear Dr. Arthur C. Guyton, professor of physiology and biophysics and chairman of the department, talk about cardiovascular research at the Medical Center.

R. J. Whitfield of Greenville, program chairman, will present Dr. Guyton to the audience. General Paxton will preside at the dinner and introduce Dr. Wakerlin. Topic of the AHA director's talk is "Advances in Cardiovascular Research."

Final event on the schedule is the annual presentation of awards by Sen. G. V. Montgomery of Meridian, who was the Heart Fund chairman for the 1962 campaign.

Dr. Moore to Head Southern Professors of Psychiatry

Dr. Floy Jack Moore of Jackson was named chairman of the Southern Professors of Psychiatry at the group's recent meeting. Dr. Moore is professor and chairman of the department, Department of Psychiatry, University of Mississippi School of Medicine.

The Southern Professors of Psychiatry is a relatively informal organization representing the 31 medical schools in the Southern states. It was organized in 1955 for the purpose of organizing an annual meeting of the chairmen of departments of psychiatry in the South to discuss problems of administration and medical education with regard to psychiatry. The annual meeting is sponsored by the National Institute of Mental Health.

According to Dr. Moore, the group functions as a kind of "human computer," although it does not often provide simple answers.

Colt .44 Replicas to Be Annual Session Exhibit Prize



Dr. C. P. Crenshaw of Collins, MSMA president-elect, examines the matched pair of Colt .44 models which will be awarded as the exhibit prize at the 94th Annual Session. The guns are Civil War Centennial replicas of the side arms, the famous Colt .44, carried by officers in the Confederate and Union armies. The weapons, produced in a limited series, are five-eighths of the original gun size. The frames are gold plated and they are completely operative firing sporting weapons, caliber .22. They have consecutive serial numbers which are recorded with Colt's Firearms Manufacturing Company. The guns are registered with the National Rifle Association. Only physicians duly registered and in attendance at the 1962 Annual Session will be eligible to win the guns.

Danish Surgeon Praises State Cerebral Palsy School

Dr. Paul Lütken of Denmark, orthopedic surgeon, commented most favorably on the Mississippi Hospital School for Cerebral Palsy in a Danish monthly paper for the parents of cerebral palsied children.

Dr. Lütken, who visited in Jackson in October 1960, wrote in *The Spastic:* "The finest school for spastic children I saw was situated in Jackson, Miss. Its name is Mississippi Hospital School for Cerebral Palsy. It is just a few years old and has accommodation for about 60 pupils, who stay at the school. In many respects it may be compared with the boarding-school of Geelsgaard because the treatment given is limited to physiotherapy and bandages, while operations are only performed after transfer to some orthopedic hospital department."

Dr. Lütken visited the United States to attend the Eighth Congress of the International Society for the Welfare of Cripples held in New York. Following the meeting, he spent several months in a study tour of the United States. JOURNAL MSMA published Dr. Lütken's paper entitled "The Mentally Deficient Child: A Doctor Talks to Parents of Cerebral Palsy Patients" in its October 1960 issue.

Council on Rehabilitation Holds Second Meeting

The second meeting of the newly organized Council on Rehabilitation, appointed by Governor Ross R. Barnett as an arm of the Mississippi executive department, was held March 12 with Dr. George D. Purvis, Jackson, chairman, presiding.

The program consisted of five-minute presentations from the Council members on the services offered by their organizations and how the maximum coordination might be achieved. Members of the Council include Charles Fulghum, Mississippi Manufacturers Association; Charles W. Flynn, Mississippi Hospital Association; Frank Oswalt, State Veterans Approving Board; John A. Craig, Workmen's Compensation Commission; Jesse White, insurance industry; C. B. Campbell, labor organization; Travis McCharen, Vocational Rehabilitation; Colon Brooks, Department of Public Welfare; John E. Aldridge, Employment Security Commission; Don Echols, Mississippi Farm Bureau Federation, and Rowland B. Kennedy, Council secretary, MSMA.

At the organizational meeting held Feb. 25 in Governor Ross Barnett's office, the chief executive challenged the Council ". . . to function as a forum for exchange of ideas by experienced individuals in the various fields of activity relating to rehabilitation of the injured workers."

Dr. Purvis said the Council would function at no expense to the state and initiate its work without delay. He stated that all members shared in the responsibility of assisting the occupationally disabled regain maximal productivity through complete rehabilitation. The new Council he continued, is a nonadministrative, nonlegislative body designed to function as a forum for exchange of ideas and as a means of improving lateral communication among the several public and private agencies represented among the members.

Saunders Announces New Publications

W. B. SAUNDERS COMPANY features the following recent books in their full page advertisement appearing elsewhere in this issue:

ADLER—TEXTBOOK OF OPHTHALMOLOGY
Concentrates on the ophthalmic problems of the nonspecialist—stressing diagnosis, treatment and indications that call for a specialist.

MAJOR AND DELP—PHYSICAL DIAGNOSIS
Offers step-by-step procedures for examining every area of the body by inspection, palpation, percussion and auscultation.

REID—TEXTBOOK OF OBSTETRICS
Gives you not only a clear picture of normal pregnancy and labor, but sound insight as well into the medical complications that may arise.

Central Society To Sponsor Course for Medical Secretaries

Beginning April 2 and 3, the Central Medical Society will sponsor a course especially designed for medical secretaries and bookkeepers, according to Dr. George E. Gillespie, secretary-treasurer of the Society.

The course will be offered to 50 persons through the facilities of the University of Mississippi Center located on Millsaps College campus. The group will be divided into two sections with one section meeting on Monday evenings and the other on Tuesday evenings through July 9 and 10.

As projected, areas to be covered during the sessions include medical terms, anatomy, reception desk procedures, grammar and punctuation, collections, medical ethics, charts and records, preparation of medical manuscripts, and completion of insurance forms. Some of the sessions will be conducted by physicians while others will be led by experienced medical secretaries and bookkeepers.

Tuition for the 15-week course will be $40.00 per student. Certificates will be issued by the University of Mississippi to those satisfactorily completing the course.

According to Dr. Gillespie, future classes may be planned by the Central Medical Society if the pilot course works out as expected.

Maternal and Child Care Committee Holds March Meet

MSMA's Committee on Maternal and Child Care met March 8 in the headquarters building in Jackson. Dr. Michael Newton, chairman, presided.

The committee discussed the program it will present at the Mississippi Ob-Gyn Society's luncheon and scientific meeting on May 10 during the 94th Annual Session. It was decided that Drs. W. E. Noblin, Jo N. Robinson, and Ralph Brock will present and discuss cases from the Committee's maternal mortality study.

Following the regular review of maternal death data sheets, Dr. Noblin presented a chart on maternal mortality. He pointed out that Mississippi had reached a record low in 1961 with only 49 maternal deaths. He added that for the first time, over half the colored infants delivered during 1961 were delivered in a hospital.

Members present at the meeting in addition to the chairman were Drs. W. E. Noblin, Jackson; Jo N. Robinson, Columbus; Margaret Veller, Natchez; Ralph L. Brock, McComb; W. B. Wiener, Jackson.

Others present were Dr. Catherine Goetz, Jackson, consultant; Dr. Curtis W. Caine, Jackson, consultant; Rowland B. Kennedy, Jackson, MSMA executive secretary; Charles L. Mathews, Jackson, MSMA assistant executive secretary, and Mrs. Margie Wilkins, Jackson, MSMA staff secretary.

Dr. Howard Nelson, Greenwood, committee member, was absent due to his attending a meeting of the AMA's Committee on Maternal and Child Care in Chicago.

31 Mississippi Physicians Die during 1961

Thirty-one Mississippi physicians died during 1961, according to State Board of Health figures.

Average age at death for the 31 was 74.7. The four oldest physicians were 86 and the youngest was 41.



Members of MSMA's Committee on Maternal and Child Care examine a chart demonstrating a decreasing trend in maternal mortality in Mississippi which resulted in a record low in 1961. From left to right are Drs. Wiener, Robinson, Veller, Newton, Noblin, Goetz, Brock, and Caine.

Task Force on Syphilis Reports Findings

A special task force report on the control of syphilis in the United States has been completed for general release. The 5-member group, appointed last year by Surgeon General Luther L. Terry, included Dr. A. L. Gray, executive officer of the State Board of Health.

In its report, the group pointedly referred to the nearly 19,000 cases of infectious syphilis reported during the 12-month period ending June 30, 1961, the highest number since 1950. The task force added that it is "particularly disturbed" with:

1. evidence of a chain reaction in the spread of syphilis infection, especially among teenagers,
2. evidence that the actual number of cases occurring far outnumber the cases reported,
3. evidence that effective techniques of control and therapy to stop the spread of syphilis are available but not applied widely enough,
4. evidence that unless a vigorous, stepped-up program is inaugurated now, the increased spread of syphilis currently being observed may be accelerated.

According to the report, it is the consensus of the task force that the rising trend of infectious syphilis can be reversed through intensification and further improvement of the casefinding process, quicker access to, and use of, operational information, increased participation in venereal disease control by private physicians, and a fact-based, plain-talking venereal disease education effort.

These conclusions formed the basis of a special report to the House Appropriations Committee. In studying the Public Health Service budget for the current fiscal year, the Appropriations Committee expressed grave concern over the alarming increase in infectious syphilis. It stated that syphilis is a disease that ought to be eliminated in the United States.

Serving on the task force with Dr. Gray were Dr. Leona Baumgartner, commissioner of health for New York City; Dr. Arthur C. Curtis, professor and chairman, department of dermatology and syphilology, University of Michigan Hospital; T. Lefoy Richman, projects coordinator for the National Commission on Community Health Services, New York City, and Benno E. Kuechle, retired insurance executive from Wausau, Wis.

NEW MEMBERS

FRANKS, ROYCE HOUSTON, Tupelo. Born Dorsey, Miss., June 15, 1919; M.D., University of Tennessee College of Medicine, Memphis, 1947; interned Baptist Memorial Hospital, Memphis, Tenn.; general surgery residency, John Gaston Hospital, one year; orthopedic surgery residency, Mississippi Baptist Hospital, one year; surgery residency, University of Mississippi School of Medicine, two years; U. S. Army, five years; elected Dec. 12, 1961, by Northeast Mississippi Medical Society.

STEPHENS, JOE KEETON, West Point. Born Belmont, Miss., Aug. 9, 1931; M.D., Tulane University School of Medicine, New Orleans, La., 1956; interned University of Mississippi School of Medicine, one year; pediatric residency, University of Alabama Medical Center, two years; U. S. Air Force, two years; elected Dec. 12, 1961, by Northeast Mississippi Medical Society.

DEATHS

MCNEASE, ROBERT REECE, Sumrall. M.D., Mississippi Medical College, Meridian, 1912; died Feb. 22, 1962, aged 71.

MONTGOMERY, WILLIAM EUGENE, Natchez. M.D., Louisville Medical College, Ky., 1907; retired from active practice in 1940; died Feb. 8, 1962, aged 80.

SHIELDS, JOSEPH DUNBAR, Pine Ridge. M.D., Memphis Hospital Medical College, Tenn., 1895; member of the American Medical Association; emeritus member of MSMA and member of the Fifty Year Club; died Feb. 16, 1962, aged 88.

SPAULDING, ROY FRANK, Arcola. M.D., University of Tennessee College of Medicine, Memphis, 1937; member of the American Genetics Society; president of the Delta Medical Society at the time of his death; member of the American Medical Association; died Feb. 22, 1962, aged 47.

WILDER, LUKE, Batesville. M.D., Memphis Hospital Medical College, Tenn., 1907; retired from active practice in 1950; died Feb. 2, 1962, aged 83.

State Thoracic Society Sets Meet for April 18

The Mississippi Thoracic Society will hold its Eighth Annual Meeting in Room 6-A, University of Mississippi School of Medicine on Wednesday, April 18, from 1:30 to 5:00 p.m., according to an announcement made by Dr. Fred Allison, Jr., president.

The scientific program arranged for the 1962 meeting will feature an address by Dr. William W. Waring, assistant professor of pediatrics, Tulane University School of Medicine, on "Bronchography in Infants and Children," and an address by Dr. John P. Wyatt, professor and chairman of the Department of Pathology, St. Louis University School of Medicine, on "New Dimensions in Pulmonary Pathology."



Dr. Wyatt

Dr. Wyatt received his medical degree from the University of Toronto in 1938. He served as an associate in pathology at Harvard Medical School from 1945-47 and has been professor of pathology at St. Louis University since 1948. He is certified by the American Board of Pathology and is a member of the American Association of Pathologists and Bacteriologists.

Other papers to be presented will include "Clinical Use of Amine Buffers," Dr. Thomas H. Arrington; "Alveolar Capillary Block Syndrome of Nonspecific Etiology: Clinical, Physiological, and Morphological Correlation," Dr. T. Walter Treadwell, Jr.; "The Preferred Treatment of Blastomycosis," Dr. John F. Busey.

The Mississippi Thoracic Society serves as the medical section of the Mississippi Tuberculosis Association. In this cooperative relationship, the Thoracic Society acts as the medical advisory board on all medical problems confronted by the Mississippi Tuberculosis Association.

Immediately following the scientific sessions of the meeting, the Society will hold its annual business meeting at Crechale & Polles Restaurant. This meeting will begin at 5:15 p.m.

In addition to the Annual Meeting of the Society held in April each year, a joint meeting with the Thoracic Societies of Alabama and Louisiana is held in mid-January. This joint meeting is a consecutive case conference type meeting. All physicians interested in tuberculosis and pulmonary diseases are urged to make plans to attend the 1962 Annual Meeting of the Society and are also invited to attend the annual Consecutive Case Conference usually held on the Mississippi Gulf Coast.

State Morbidity Reported Through Feb. 23

The Mississippi State Board of Health reports the following occurrence of morbidity for 1961 through the 8th week of the year, ending Feb. 23, 1962. Case totals reported are shown opposite the disease condition.

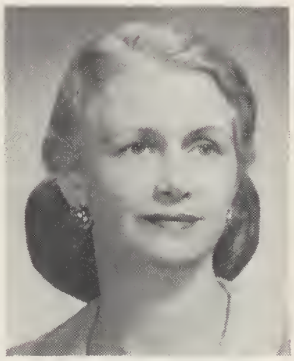
Tuberculosis, pul.	91
Tuberculosis, O.F.	6
Dysentery	
Amebic	1
Bacillary	2
Septicemia, Strep.	3
Staphylococcus infection	7
Diphtheria	1
Meningococcus infection	
Meningitis	3
Meningococcemia	1
Meningitis, O.F.	9
Other complications of smallpox vaccination	1
Tetanus	3
Encephalitis, infectious	2
Mononucleosis, infectious	8
Diarrhea of newborn	2
Hepatitis, infectious	214
Helminthic infections	
Hookworm	74
Ascariasis	43
Streptococcus infection	
Scarlet fever	73
Strep throat	873
Rheumatic fever	1
Pertussis	5
Measles	1,013
Chickenpox	325
Mumps	71
Influenza	10,045
Gonorrhea	783
Syphilis	
Early	23
Late	59

AUXILIARY

Mrs. Croom to Represent AMA at State Convention

Mrs. Robert D. Croom, Jr., of Maxton, N. C., will represent the Woman's Auxiliary to the American Medical Association at the Mississippi State Medical Auxiliary Convention in Jackson, May 7-9.

Mrs. Croom is serving her second year as a director in the AMA Auxiliary. She was Southern Regional safety chairman in 1956-57. An active auxiliary member for more than 20 years, she was North Carolina state president in 1955-56.



Mrs. Croom

Mrs. Croom received her degree in music from Queens College and after graduate study at New York University, taught music for nine years. Dr. and Mrs. Croom have three sons, the oldest now in medical school.

In addition to her work with the medical auxiliary, Mrs. Croom has had wide interests in her community. She has served as area chairman, United Nations week, as a member of the state poliomyelitis advisory committee since 1955, a member of the county heart committee, and on the board of education.

Mrs. Dees Heads Central Medical Auxiliary

Mrs. J. Gordon Dees is the new president of Central Medical Auxiliary.

Other officers are Mrs. Lewis Crouch, president-elect; Mrs. Jim G. Hendrick, vice-president; Mrs. James M. Packer, secretary; Mrs. Chester Lake, treasurer; Mrs. Warren Jones, parliamentarian, and Mrs. W. Ney Williams, historian.

Plans Completed For 39th Annual Session

The 39th Annual Session of the Woman's Auxiliary to the Mississippi State Medical Association will open May 7 at the King Edward Hotel in Jackson.

Mrs. John G. Egger of Drew is currently serving as president of the Auxiliary. She will turn over the gavel to Mrs. A. T. Tatum of Petal at the end of this year's meeting. Mrs. Raymond F. Grenfell of Jackson is convention general chairman.

Monday's activities will include registration and a dutch luncheon at the Capital City Club. Tuesday's agenda begins with a continental breakfast given by Mrs. Egger for Auxiliary members. Highlight of the second day's program will be the general session followed by a luncheon. Luncheon speaker will be Mrs. Robert D. Croom, Jr., of Maxton, N. C., AMA representative. The postconvention board meeting will be held Tuesday afternoon with Mrs. Tatum presiding.

Wednesday's events will open with the past presidents' breakfast at which Mrs. Lee R. Reid, Jackson, will preside. Auxiliary members will then attend the Symposium on Space Medicine. The Annual Session will end with a talk by Mrs. John B. Howell, Jr., of Canton on "Floral Treatment of Fauna" and a tour of Mynelle's Gardens.



Mrs. John G. Egger, seated left, president of the Woman's Auxiliary, and Mrs. A. T. Tatum, seated right, president-elect, are shown with Mrs. Raymond F. Grenfell, convention chairman. Plans have been completed for the Auxiliary's 39th Annual Session which will open May 7 in Jackson.



LOMOTIL®

(brand of diphenoxylate hydrochloride with atropine sulfate)

ANTIDIARRHEAL TABLETS and LIQUID

lowers motility / relieves cramping / controls diarrhea

Roentgenographic studies by Demeulenaere[1] established that a single dose of 10 mg. of Lomotil slowed gastrointestinal transit within two hours and that it maintained its decelerating activity for more than six hours.

In diarrhea this lowered propulsion permits a physiologic absorption of excess fluid, lessens frequency and fluidity of stools and gives safe, selective, symptomatic control of most diarrheas. Concurrently, it conserves electrolytes and controls cramping.

Investigators have found the antidiarrheal action of Lomotil not only "excellent"[2] but "efficacious[3] where other drugs have failed. . . ."

DOSAGE: For *adults* the recommended initial dosage is two tablets (2.5 mg. each) three or four times daily, reduced to meet the requirements of each patient as soon as the diarrhea is under control. Maintenance dosage may be as low as two tablets daily. For *children* daily dosages, in divided doses, range from 3 mg. (½ teaspoonful three times daily) for infants 3 to 6 months to 10 mg. (1 teaspoonful five times daily) for children 8 to 12 years. Lomotil is supplied as unscored, uncoated white tablets of 2.5 mg. and as liquid containing 2.5 mg. in each 5 cc. A subtherapeutic amount of atropine sulfate (0.025 mg.) is added to each tablet and each 5 cc. of the liquid to discourage deliberate overdosage. The recommended dosage schedules should not be exceeded.

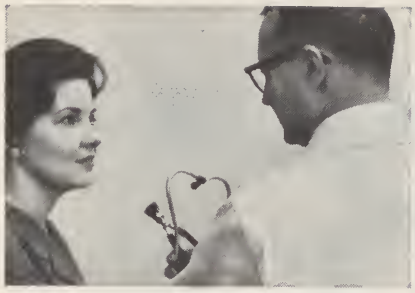
NOTE: Lomotil is an exempt narcotic preparation.

Descriptive literature and directions for use detailed in Physicians' Product Brochure No. 81 available from G. D. Searle & Co., P. O. Box 5110, Chicago 80, Illinois.

1. Demeulenaere, L.: Actian du R 1132 sur le transit gastraintestinal, Acta Gastroent. Belg. 21:674-680 (Sept.-Oct.) 1958.
2. Kasich, A. M.: Treatment of Diarrhea in Irritable Colon, Including Preliminary Observations with a New Antidiarrheal Agent, Diphenoxylate Hydrochloride (Lomotil), Amer. J. Gastroent. 35:46-49 (Jan.) 1961.
3. Weingarten, B.: Weiss, J., and Simon, M.: A Clinical Evaluation of a New Antidiarrheal Agent, Amer. J. Gastroent. 35:628-633 (June) 1961.

G. D. SEARLE & CO.

Research in the Service of Medicine



SUCCESSFUL FAMILY PLANNING...BASED ON YOUR COUNSEL AND LANESTA® GEL

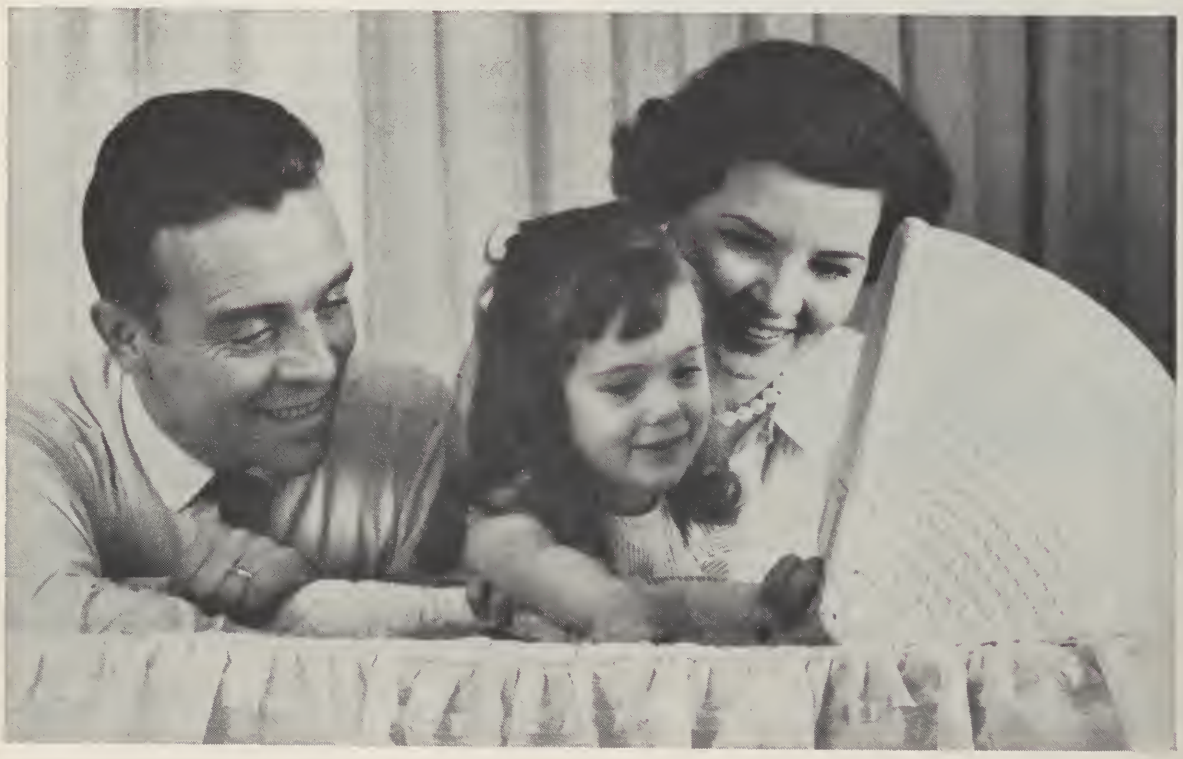
The new baby is beautiful, but his arrival raises some problems in family planning on which the mother will need help — *your* help. What you counsel or suggest to her may determine the family's happiness for many years to come. When she comes in to see you for her routine postnatal check-up, you have an ideal opportunity to counsel her and answer her questions. It's also an ideal time to recommend the use of Lanesta Gel.

Lanesta Gel, with or without a diaphragm, is a most effective means of conception control. Lanesta Gel offers faster spermicidal action because it rapidly diffuses into the seminal clot. In fact, the mean diffusion spermicidal time of Lanesta Gel is three to seven times faster than the mean diffusion times of ten leading commercially available contraceptive creams, gels, or jellies, according to Gamble ("Spermicidal Times of Commercial Contraceptive Materials — 1959").*

Lanesta Gel has complete esthetic acceptance and is well tolerated.

*Gamble, C.J.: Am. Pract. & Digest. Treat. *11*:852 (Oct.) 1960. See also Berberian, D.A., and Slighter, R.G.: J.A.M.A. *168*:2257 (Dec. 27) 1958; Kaufman, S.A.: Obst. and Gynec. *15*:401 (March) 1960; Warner, M.P.: J.Am.M. Women's A. *14*:412 (May) 1959.

A PRODUCT OF LANTEEN® RESEARCH BREON Distributed by
Supplied by Esta Medical Laboratories, Inc., Alliance, Ohio BREON LABORATORIES INC., New York 18, N. Y.





Diet patients welcome varied fare like this.

How to help your patient stick to a high protein diet

The secret ingredient in a successful diet is acceptance. And a diet that offers as many appetizing foods as this is sure to win the approval and continued interest of your patient!

A fluffy omelette filled with frankfurters cut into thin slices is a delicious source of protein, as are ground meat and fish. Cottage cheese makes a flavorful side dish or satisfying filling for dark bread sandwiches.

Hot weather suppers call for mixed green salad topped with meat and cheese slices . . . followed by a bowl piled high with chilled fruit of the season.



A glass of beer can add zest to a patient's diet

Protein, 0.8 gm;
Calories 104/8 oz. glass
(Average of American Beers)

United States Brewers Association, Inc.

For reprints of this and 11 other diet menus, write us at 535 Fifth Avenue, N.Y. 17, N.Y.

Theragran®

SQUIBB VITAMINS FOR THERAPY

For your patients with infections or other illnesse
who need therapeutic vitamin support. Eac
Theragran supplies the essential vitamins in trul
therapeutic amounts:

Vitamin A	25,000 U.S.P. Uni
Vitamin D	1,000 U.S.P. Uni
Thiamine Mononitrate	10 m
Riboflavin	10 m
Niacinamide	100 m
Vitamin C	200 m
Pyridoxine Hydrochloride	5 m
Calcium Pantothenate	20 m
Vitamin B_{12}	5 mc

SQUIBB *Squibb Quality—the Priceless Ingredient*

'Theragran'® is a Squibb trademark

"nutrition...present as a modifying or complicating factor in nearly every illness or disease state"[1]

1. Youmans, J. B.: Am. J. Med. 25:659 (Nov.) 1958

adiac diseases "Who can say, for example, whether the patient chronically ill with myocardial failure may not have a poorer myocardium because of a moderate deficiency in the vitamin B-complex? Something is known of the relationship of vitamin to the intercellular ground substance and repair of tissues. One may speculate upon the effects of a deficiency of this vitamin, short of scurvy, upon the tissues in chronic disease."[2] 2. Kampmeier, R. H.: Am. J. Med. 25:662 (Nov.) 1958.

rthritis "It is our practice to prescribe a multiple vitamin preparation to patients with rheumatoid arthritis simply to insure nutritional adequacy . . ."[3]
Fernández-Herlihy, L: Lahey Clinic Bull. 11:12 (July-Sept.) 1958.

igestive diseases Symptoms attributable to B-vitamin deficiency are commonly observed in patients on peptic ulcer diets.[4] Daily administration of therapeutic vitamins to patients with hepatitis and cirrhosis is recommended by the National Research Council.[5] 4. Sebrell, W. H.: Am. J. Med. 25:673 (Nov.) 1958. 5. Pollack, H., and Halpern, S. L.: Therapeutic Nutrition, National Academy of Sciences and National Research Council, Washington, D. C., 1952, p. 57.

le generative diseases "Studies by Wexberg, Jolliffe and others have indicated that many of the symptoms attributed in the past to senility or to cerebral arteriosclerosis seem to respond with remarkable speed to the administration of vitamins, particularly niacin and ascorbic acid. These facts indicate that the vitamin reserve of aging persons is lowered, even to the danger point, more than is the case in the average American adult."[6] 6. Overholser, W., and Fong, T. C. C. In Stieglitz, E. J.: Geriatric Medicine, 3rd edition, J. B. Lippincott, Philadelphia, 1954, p. 264.

nfectious diseases Infections cause a lowering of ascorbic acid levels in the plasma; and the absorption of this vitamin is reduced in diarrheal states.[7] 7. Goldsmith, G A.: Conference on Vitamin C. The New York Academy of Sciences, New York City, Oct. 7 and 8, 1960. Reported in: Medical Science 8:772 (Dec.10) 1960.

iabetes Diabetics, like all patients on restricted diets, require an extra source of vitamins.[8] "Rigidly limiting the bread intake of the diabetic patient automatically eliminates a large amount of thiamin from the diet. . . . There is some evidence of interference with normal riboflavin utilization during catabolic episodes."[9]
Duncan, G. G.: Diseases of Metabolism 4th edition W. B. Saunders, Philadelphia, 1959, p. 812. 9. Pollack, H.: Am. J. Med. 25:708 (Nov.) 1958.

FOR FULL INFORMATION SEE YOUR SQUIBB PRODUCT REFERENCE OR PRODUCT BRIEF.


THIS END UP

Can we measure the patient's comfort?

The physician can measure the basal metabolic rate by means of oxygen consumption. But he has no instrument—no objective test—for measuring comfort.

For this, he must depend upon his own powers of observation and the patient's own description of how he feels.

Because these are, admittedly, subjective criteria, the validity of results hinges entirely on the experience and objectivity of the investigators involved.

Such well-qualified clinicians have reported that a new corticosteroid developed in the research laboratories of Upjohn actually raises the level of relief obtainable with this type of therapy.

This difference cannot be "proved." It must be seen. And the only practical way for you to do this is to evaluate this new drug critically in your own practice. Please do, at your first opportunity. We are confident that you will be glad you did.

The new corticosteroid from Upjohn research

Alphadrol*

Each tablet contains Alphadrol (fluprednisolone) 0.75 mg. or 1.5 mg.
Supplied in bottles of 25 and 100.

The anti-inflammatory activity of Alphadrol is comparable to the best effects obtained in current practice. Results obtained with Alphadrol have been such as to warrant classifying it among the most efficient steroids now available.

More than twice as potent as prednisolone, Alphadrol exhibits no new or bizarre side effects. Salt retention, edema or hypertension, potassium loss, anorexia, muscle weakness or muscle wasting, excessive appetite, abdominal cramping, or increased abdominal girth have not been a problem.

Indications and effects

The benefits of Alphadrol (anti-inflammatory, antiallergic, antirheumatic, antileukemic, antihemolytic) are indicated in acute rheumatic carditis, rheumatoid arthritis, asthma, hay fever and allergic disorders, dermatoses, blood dyscrasias, and ocular inflammatory disease involving the posterior segment.

Precautions and contraindications

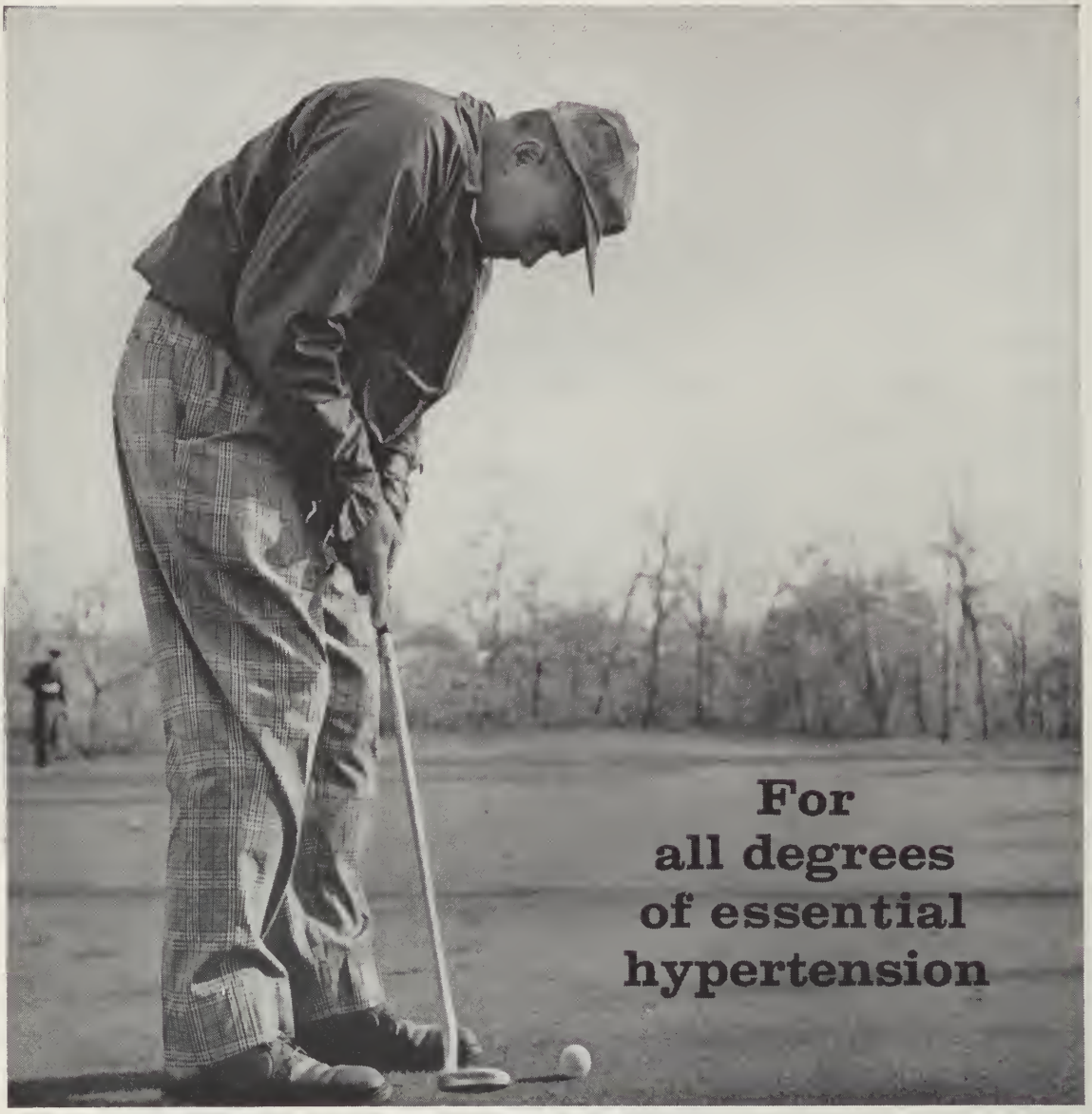
Patients on Alphadrol will usually experience dramatic relief without developing such possible steroid side effects as gastrointestinal intolerance, weight gain or weight loss, edema, hypertension, acne or emotional imbalance.

As in all corticotherapy, however, there are certain precautions to be observed. The presence of diabetes, osteoporosis, chronic psychotic reactions, predisposition to thrombophlebitis, hypertension, congestive heart failure, renal insufficiency, or active tuberculosis necessitates careful control in the use of steroids. Like all corticosteroids, Alphadrol is contraindicated in patients with arrested tuberculosis, peptic ulcer, acute psychoses, Cushing's syndrome, herpes simplex keratitis, vaccinia, or varicella.

Copyright 1962, The Upjohn Company
*Remark, Reg. U.S. Pat. Off.
February, 1962

The Upjohn Company
Kalamazoo, Michigan

Upjohn



"relief of symptoms is striking with Rautrax-N"†

Rautrax-N decreases blood pressure for almost all patients with mild, moderate or severe essential hypertension. Rautrax-N also offers a new sense of relaxation and well-being in hypertension complicated by anxiety and tension. And in essential hypertension with edema and/or congestive heart failure, Rautrax-N achieves diuresis of sodium and chloride with minimal effects on potassium and other electrolytes.

Rautrax-N combines Raudixin (antihypertensive-tranquilizer) with Naturetin c̄ K (antihypertensive-diuretic) for greater antihypertensive effect and greater effectiveness in relief of hypertensive symptoms than produced by either component alone. Rautrax-N is also flexible (may be prescribed in place of Raudixin or Naturetin c̄ K) and economical (only 1 or 2 tablets for maintenance in most patients).

Supply: Rautrax-N — capsule-shaped tablets providing 50 mg. Raudixin, 4 mg. Naturetin and 400 mg. potassium chloride. *Rautrax-N Modified* — capsule-shaped tablets providing 50 mg. Raudixin, 2 mg. Naturetin and 400 mg. potassium chloride.

†Hutchison J. C.: Current Therap. Res. *2*:487 (Oct.) 1960.

For full information, see your Squibb Product Reference or Product Brief.

Rautrax-N*

Squibb Standardized Rauwolfia Serpentina Whole Root (Raudixin) and Bendroflumethiazide (*Naturetin) with Potassium Chloride

SQUIBB *Squibb Quality — the Priceless Ingredient*
SQUIBB DIVISION Olin

'RAUDIXIN'®, 'RAUTRAX'®, AND' NATURETIN'® ARE SQUIBB TRADEMARKS.

Textbook after textbook, article after article and experience in practice after practice consistently have demonstrated the capacity of Demerol to produce satisfactory analgesia without weakening the intensity of uterine contractions. In fact, many observers have reported an apparent shortening of labor, particularly in the primipara.

Because it is well tolerated by both the mother and the newborn child, Demerol is generally considered one of the safest analgesics for use in obstetric practice.

In addition to satisfactory analgesia, a moderate sedative effect is obtained with large doses, and sleep is frequently induced between pains.

In 13,000 deliveries reported by 158 physicians, "Demerol was unquestionably the narcotic of choice during labor." *(Questionnaire, The Maternal and Child Welfare Committee, South Dakota State M. A., 1958)*[1]

"Demerol is our drug of choice for analgesia during labor." *(Posner, Fielding and Posner, Harlem Hospital, New York City)*[2]

Demerol in combination with scopolamine ". . . offers the best means of securing analgesia and amnesia in labor with the least risk to the mother and child. . . . Often one is amazed at the manner in which the cervix melts away under this form of medication." *(Beck and Rosenthal, State University of New York)*[3]



COMFORT—*with Safe Control—in Millions of Patients*



DEMEROL®

THE ANALGESIC OF CHOICE IN OBSTETRIC PRACTICE

Winthrop LABORATORIES • New York 18, N.Y.

For a Smooth Delivery...

DEMEROL®

BRAND OF MEPERIDINE HYDROCHLORIDE

THE ANALGESIC OF CHOICE IN OBSTETRIC PRACTICE



Winthrop

DEPENDABLE ANALGESIA AND AMNESIA

Demerol with Scopolamine

"When combined with scopolamine, it [Demerol] can produce satisfactory amnesia-analgesia in over 90% of the mothers during labour."

(Hershenson and Reid, Boston Lying-in Hospital and Harvard M. Sch.)[4]

In one of the most commonly used technics, an initial dose of 100 mg. of Demerol and 1/150 grain of scopolamine is given intramuscularly when labor is established. Subsequently, 100 mg. of Demerol are given every four hours and 1/200 grain of scopolamine every three hours. "Within 15 or 20 minutes the pain is relieved and neither the frequency nor the intensity of the uterine contractions are diminished."

(Beck and Rosenthal)[3]

Demerol is "... an analgesic drug which relieves pain about as well as does morphine, and it has in addition an antispasmodic action which makes it a good preparation for use during labor. ... It may be given alone but its effect is enhanced when it is used in combination with scopolamine, and the resultant amnesic effect is excellent."

(Titus, Pittsburgh)[5]

SIDE EFFECTS AND CONTRAINDICATIONS: Demerol hydrochloride is generally well tolerated and nontoxic in therapeutic doses. Side effects occur more frequently in ambulatory patients (who should therefore be specially cautioned) than in those confined to bed. Dizziness is the most common reaction. Nausea or vomiting occurs less frequently than after administration of morphine. Flushing of the face, sweating and dryness of the mouth are sometimes noted. More severe reactions are characterized by great weakness, syncope, profuse perspiration, marked dizziness, and nausea and vomiting. They usually can be prevented if the patient lies down promptly at the onset of side effects. Tolerance to side effects usually develops quickly if medication is continued in small doses (25 mg.). In contrast to morphine, respiratory depression occurs infrequently. However, in patients with lesions that cause increased intracranial pressure, respiratory depression has been noted; therefore, the drug is considered to be contraindicated in such persons.

When Demerol with Scopolamine is used, idiosyncrasy to scopolamine may be encountered occasionally, producing the paradoxic effect of excitement, restlessness, hallucinations and delirium instead of sedation and amnesia. In addition, edema of the uvula, glottis and lips may be encountered occasionally in extremely hypersensitive patients.

Nalorphine (Nalline®) or levallorphan (Lorfan®) are considered to be specific antidotes against respiratory depression which may result from overdosage or unusual sensitivity to narcotics including Demerol.

1. Ranney, Brooks: *South Dakota J. Med. & Pharm.* 11:479, Dec., 1958.
2. Posner, L. B.; Fielding, W. L., and Posner, A. C.: *Obst. & Gynec.* 2:81, July, 1953.
3. Beck, A. C., and Rosenthal, A. H.: Obstetrical Practice, ed. 7, Baltimore, The Williams & Wilkins Company, 1958, pp. 1029, 1030.
4. Hershenson, B. B., and Reid, D. E.: *Bull. Narcotics* 8:36, July-Sept., 1956.
5. Titus, Paul: The Management of Obstetric Difficulties, ed. 5, St. Louis, C. V. Mosby Co., 1955, p. 617.

PRINTED IN U. S. A. REVISED DECEMBER 1961 (1633M)

DEMEROL Hydrochloride Solutions / *for Parenteral Use:*

50 mg. per ml.: Ampuls of 0.5, 1, 1.5 and 2 ml. (25 to 100 mg.); vials of 10 and 30 ml.; disposable syringes of 1 ml.

75 mg. per ml.: Disposable syringes of 1 ml.

100 mg. per ml.: Ampuls of 1 ml.; vials of 20 ml.; disposable syringes of 1 ml.

pH of Demerol 5% and 10% solutions in ampuls and vials is adjusted between 4.5 and 6.0 with sodium hydroxide or hydrochloric acid. Multiple dose vials of Demerol solution also contain metacresol 0.1 per cent as preservative.

Demerol with Scopolamine (50 mg. of Demerol HCl and 1/300 grain of scopolamine HBr per ml.): Ampuls of 2 ml.; vials of 30 ml. pH is adjusted between 4 and 5 with sodium hydroxide or hydrochloric acid.

DEMEROL Hydrochloride / *for Oral Use:*

Demerol hydrochloride tablets 50 mg.

Demerol hydrochloride tablets 100 mg.

Demerol hydrochloride elixir (50 mg. per 5 ml. teaspoon)—Pleasant banana flavor, nonalcoholic. Especially useful for children.

A.P.C. with Demerol tablets—For potentiated action each tablet contains: 200 mg. (3 grains) of aspirin, 150 mg. (2½ grains) of phenacetin, 30 mg. (½ grain) of caffeine, and 30 mg. (½ grain) of Demerol hydrochloride.

Subject to regulations of the Federal Bureau of Narcotics.

THE STANDARD **DEMEROL®**

for Controlled, Safe Analgesia in Obstetrics



Out-Patient Clinic and Offices

HILL CREST SANITARIUM

Established in 1925

FOR NERVOUS AND MENTAL DISEASES
AND ADDICTION PROBLEMS

James A. Becton, M.D.
P. O. Box 2896, Woodlawn Station, Birmingham 6, Ala.

James Keen Ward, M.D.
Phone 595-1151 and 595-1152

APPALACHIAN HALL

ESTABLISHED — 1916

ASHEVILLE NORTH CAROLINA



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.

Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.

Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

WM. RAY GRIFFIN, JR., M.D.
ROBERT A. GRIFFIN, M.D.

MARK A. GRIFFIN, SR., M.D.
MARK A. GRIFFIN, JR., M.D.

For rates and further information, write: APPALACHIAN HALL, ASHEVILLE, N. C.



Put your low-back patient back on the payroll

Soma relieves stiffness –stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, fast!

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

Kestler reports in controlled study: *Average time for restoring patients to full activity: with Soma, 11.5 days; without Soma, 41 days.* (*J.A.M.A. Vol. 172, No. 18, April 30, 1960.*)

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. **USUAL DOSAGE: 1 TABLET Q.I.D.**

The muscle relaxant with an independent pain-relieving acti

SOMA

(carisoprodol, Walla

Wallace Laboratories, Cranbury, New Jers



when occupational allergies strike

CONTINUOUS 10-12 HOUR ACTION

Dimetane® Extentabs®

parabromdylamine (brompheniramine) maleate 12 mg.

reliably relieve the symptoms...seldom affect alertness

Beauticians (and their customers) may develop allergies to henna, dyes and oils... housewives to dust and soap... farmers to pollens and molds. Most types of allergies — occupational, seasonal or occasional reactions to foods and drugs — respond to Dimetane. With Dimetane most patients become symptom free *and* stay alert, and on the job, for Dimetane works... with a very low incidence of significant side effects. Also available in conventional tablets, 4 mg.; Elixir, 2 mg./5 cc.; Injectable, 10 mg./cc. or 100 mg./cc.

A. H. ROBINS CO., INC., RICHMOND 20, VIRGINIA

MAKING TODAY'S MEDICINES WITH INTEGRITY... SEEKING TOMORROW'S WITH PERSISTENCE



NEO-VADRIN

FOR NASOSINUSITIS

NEO-VADRIN is the deep nasal decongestant that restores drainage and ventilation of all eight sinuses by opening up the obstructed ostia.

The therapeutic effect is both prompt and prolonged. Hence Neo-Vadrin is ideal for treatment of deep nasal and sinus congestion due to head colds, hay fever, vasomotor rhinitis, nasal allergy, and sinusitis.

In addition, Neo-Vadrin is antiseptic and locally anesthetic. May be used by patients of all ages.

[1]**Sollmann's Manual of Pharmacology,** 8th ed., 1957, p. 507.
[2]**Modern Drug Encyclopedia,** 7th ed., 1958, p. 757.

NEO-VADRIN CONTAINS:

dl-Norephedrine HCl	0.4%
Phenylephrine HCl	0.15%
Chlorobutanol	0.15%
Benzalkonium Chloride	0.005%

The more prolonged action of dl-norephedrine[1] combined with promptly effective phenylephrine[2] provides a long span of hours for more satisfactory therapeutic response.

Supplied in 1 fld. oz. dropper bottles with special nasal applicator and ¾ oz. plastic spray bottles.

Samples are available to physicians upon request. Please make your request on your prescription sheet or letterhead.

(FTP) **First Texas** *Pharmaceuticals, Inc.*

DALLAS • SINCE 1901

a
major achievement
in the convenience
of intramuscular
antibiotic therapy

Terramycin® Isoject™

oxytetracycline for intramuscular injection, ready to use in sterile syringe with sharp, sterile needle — all in one integrated, entirely disposable unit

completely
sealed to prevent syringe-transmitted hepatitis/
ready-to-use/tamper-proof/
disposable...and
surprisingly economical

Pfizer *Science for the world's well-being®*





a major achievement in the convenience of intramuscular antibiotic therapy

Terramycin® Isoject™

provides the benefits of Terramycin Intramuscular Solution: rapid effectiveness against a broad range of pathogens; rapid, wide distribution in body tissues and fluids; excellent toleration

plus . . . all the advantages of the ISOJECT unit:

convenient completely self-contained/no intricate assembly/no chance of lost parts

sterile and completely disposable prevents syringe-transmitted hepatitis

economical compares very favorably in cost with less convenient and practical forms — and reduces likelihood of breakage and waste

tamper-proof unit is safely sealed

presently available ISOJECT forms:
Terramycin® Intramuscular Solution — 100 and 250 mg.
Vistaril® Parenteral Solution — 25 and 50 mg.
Streptomycin Sulfate Solution — 1 Gm.

IN BRIEF

The dependability of Terramycin in daily practice is based on its broad range of antimicrobial effectiveness, excellent toleration, and low order of toxicity. As with other broad-spectrum antibiotics, overgrowth of nonsusceptible organisms may develop. If this occurs, discontinue the medication and institute appropriate specific therapy as indicated by susceptibility testing. Glossitis and allergic reactions to Terramycin are rare. As with all I.M. preparations, injection should be made within the body of a relatively large muscle. Care should always be taken to avoid injection into a major nerve or its surrounding sheath. For complete dosage, administration, and precaution information, read package insert before using. Terramycin Intramuscular Solution contains 2% (W/V) Xylocaine.*

More detailed professional information available on request.

*Xylocaine® is the registered trademark of Astra Pharmaceutical Products, Inc., for its brand of lidocaine.

Science for the world's well-being® Pfizer PFIZER LABORATORIES Division, Chas. Pfizer & Co., Inc. New York 17, N. Y.



a relaxed mind in a relaxed body
with
Trancopal®
Brand of chlormezanone
effective TRANQUILIZER ■ potent MUSCLE RELAXANT

When you prescribe Trancopal you can see how this "tranquilaxant" speedily helps the anxious patient. It quiets his psyche — and this quieting helps relax tense muscles. It eases muscle spasm — and this easing helps put the mind at rest.

DeNyse[1] notes that the effect of Trancopal as a quieting agent ". . . may play a part in the skeletal muscle relaxing results obtained." Gruenberg[2] used Trancopal to treat patients with musculoskeletal disorders, and commented: "In addition to relieving spasm and pain, with subsequent improvement in movement and function, Trancopal reduced restlessness and irritability in a number of patients."

Trancopal has an unsurpassed record of safety. Very few side effects occur with Trancopal. You may see them in only about two out of a hundred patients, and they will almost always be mild.

Available: 200 mg. Caplets® (green colored, scored), bottles of 100
100 mg. Caplets (peach colored, scored), bottles of 100

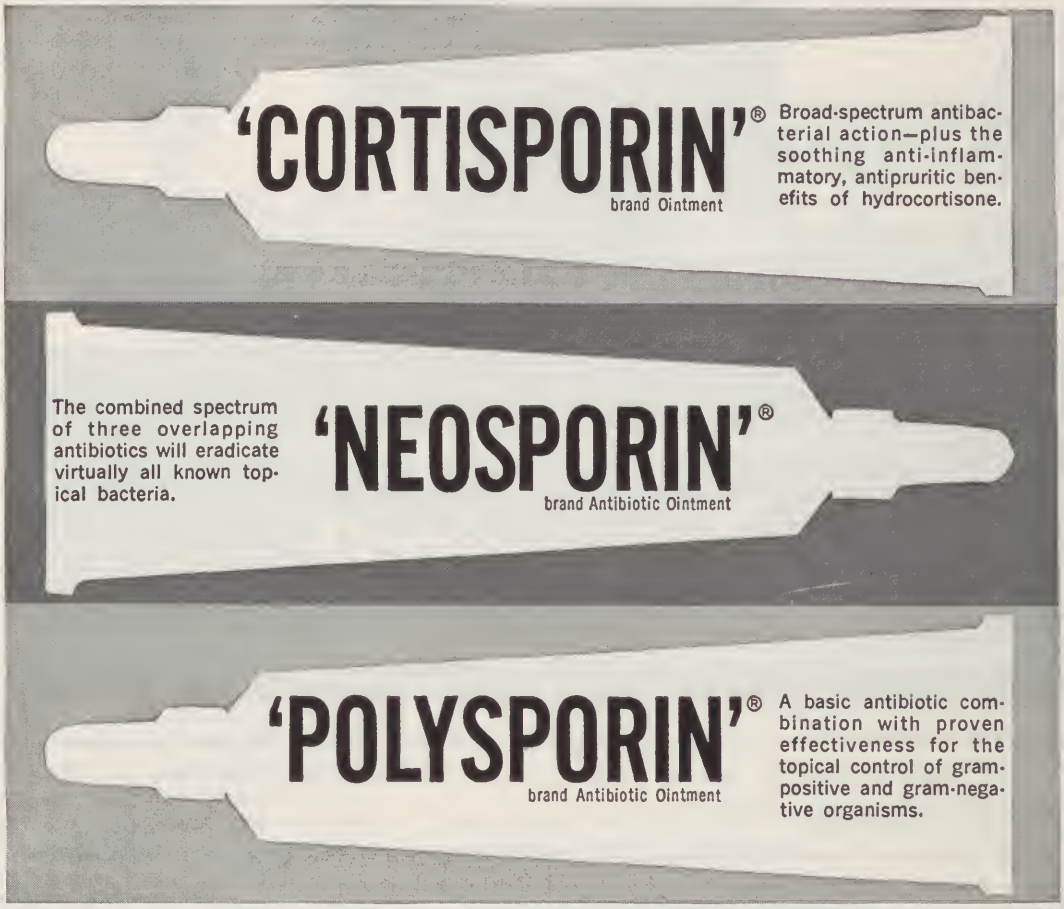
Dosage: Adults, 1 Caplet (200 mg.) three or four times daily;
children (5 to 12 years), from 50 to 100 mg. three or four times daily.

Before prescribing, consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.

References: 1. DeNyse, D. L. : M. Times *87*:1512 (Nov.) 1959.
2. Gruenberg, F.: Current Therap. Res. *2*:1 (Jan.) 1960.

Winthrop LABORATORIES New York 18, N.Y.
1649M

'B. W. & Co.' 'Sporin' Ointments rarely sensitize . . . give decisive bactericidal action for most every topical indication



Contents per Gm.	'Polysporin'®	'Neosporin'®	'Cortisporin'®
'Aerosporin'® brand Polymyxin B Sulfate	10,000 Units	5,000 Units	5,000 Units
Zinc Bacitracin	500 Units	400 Units	400 Units
Neomycin Sulfate	—	5 mg.	5 mg.
Hydrocortisone	—	—	10 mg.
Supplied:	Tubes of 1 oz., ½ oz. and ⅛ oz. (with ophthalmic tip)	Tubes of 1 oz., ½ oz. and ⅛ oz. (with ophthalmic tip)	Tubes of ½ oz. and ⅛ oz. (with ophthalmic tip)

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York

INDEX TO ADVERTISERS

In accepting advertising for publication, the JOURNAL has exercised reasonable precaution to insure that only reputable, factual advertisements are included. Nevertheless, claims made by advertisers in behalf of goods, services, and medicinal preparations, apparatus or physical appliances are understood to be those of the advertiser. Neither sanction nor endorsement of such is warranted, stated, or implied by the association.

	Adv. page
Abars Pharmaceuticals	center
Abbott Laboratories	insert
American Medical Association	24
Ames Company	43
Annual Session	21, 23
Appalachian Hall	35
Blue Cross	before center
Breon Laboratories	28
Burroughs Wellcome	40
First Federal of Jackson	after center
First Texas Pharmaceuticals	38
Hill Crest Sanitarium	35
Kay Surgical	14
Lederle Laboratories	6
Eli Lilly	front cover, 26
P. Lorillard	15
Mission Pharmacal Company	10
Organon, Inc.	7
Parke, Davis and Company	2, 3
Pfizer Laboratories	12, 13, 14, insert
Physicians Casualty	14
A. H. Robins	insert, 19, 37
Roche Laboratories	back cover
Sardeau	20
W. B. Saunders	11
Schering Corporation	25
G. D. Searle	27
E. R. Squibb	8, 30, 31, 34
U. S. Brewers	29
U. S. Vitamin	16, 17
Upjohn Company	32, 33
Wallace Laboratories	9, 36
Winthrop Laboratories	4, 18, insert, 39, 42

Articles for Publication

Manuscripts should be typewritten, double spaced on one side of the paper. Tables, charts, and tabulations should be submitted on separate sheets but their position in the text should be indicated. Authors are encouraged to limit bibliographies to 10 references, written in conformation to style utilized in scientific publications of the American Medical Association. Articles are accepted for publication on the condition that they have not been previously published and are contributed solely to this JOURNAL.

A thesis summary of 75 to 100 words must accompany each manuscript separately from the text. Figures and drawings are acceptable when prepared with black ink on white paper. Photographs for illustrations should be unmounted, untrimmed, glossy prints and all such material must be identified. No charges are made to authors for illustration engravings not exceeding four column inches per printed page.

Reprints may be obtained at cost from the association. The right is reserved to decline any manuscript for publication. Ordinarily, manuscripts submitted will be acknowledged whether published or not.

PSYCHOSIS OF PSEX

The resident in psychiatry was lammenting to his chief that he could get no intelligent responses from his patients. "Suppose you ask me some of your questions," the professor suggested.

"My first question is, 'What wears a skirt and from whose lips come pleasure?' "

"A Scotsman blowing his bagpipe," the older physician replied.

"Correct," the young resident said. "Now, what is it that has devastating curves but at unexpected moments becomes uncontrollable?"

"Why, Whitey Ford's pitching."

"Right again. What do you think when two arms slip around you?"

"A football tackle."

"Of course," the young doctor replied, "all your answers are precisely correct but you should hear the stupid replies I get from the patients!"

—*Yale Record*

RECYCLED

Ad on bulletin board at the Pensacola Naval Air Station service club: "For Sale: 1961 Harley-Davidson motorcycle. Good condition, right price. Contact James F. Jones, S1/c, Fracture Ward, Base Hospital."

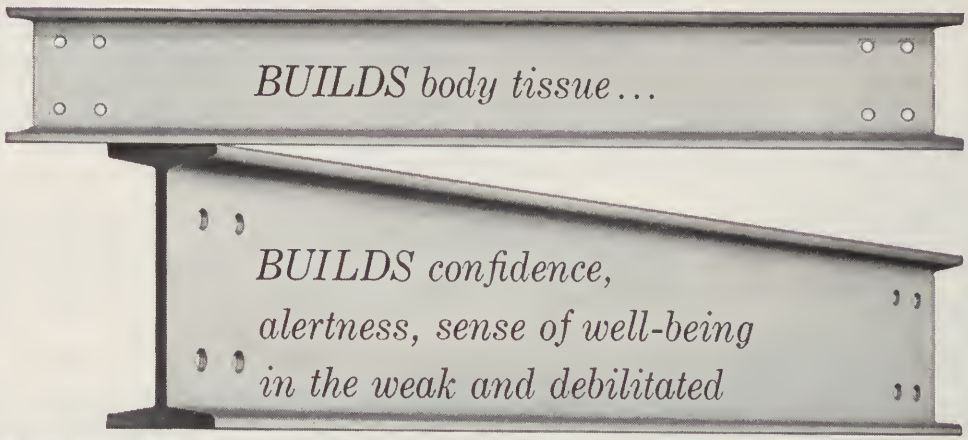
From Winthrop Laboratories–

A SIGNIFICANT NEW PHYSIOTONIC

to treat the TOTAL patient

WINSTROL®

BRAND OF STANOZOLOL



With *thirty* times the anabolic activity of methyltestosterone... and only *one-fourth* its undesirable androgenicity*—well tolerated WINSTROL therapy results in:

- Marked improvement in appetite
- Measurable weight gain
- Notable increase in vigor, strength and sense of well-being

for ...the tired, weak, irritable catabolic patient unable to overcome daily lethargy
...the elderly person with asthenia, inanition, anorexia or osteoporosis
...the patient with malignant, chronic or infectious disease
...the listless, undernourished child
...the adolescent with persistent underweight
...the patient on prolonged steroid therapy—to counteract catabolic effects

With WINSTROL, patients look better, feel stronger—because they are stronger.

Dosage: Usual adult dose, one 2 mg. tablet t.i.d. just before or with meals; children from 6 to 12 years, up to 1 tablet t.i.d.; children under 6 years, ½ tablet b.i.d. Available in bottles of 100 tablets.

*animal data

Complete bibliography and literature available on request. Before prescribing, consult literature for additional dosage information, possible side effects and contraindications.

Winthrop LABORATORIES
1450 Broadway • New York 18, N. Y.

1671M

NEW!

DECHOLIN-BB®

COUNTERACTS 3 COMMON CAUSES in functional G.I. disturbances related to hepatobiliary dysfunction

TENSION	SPASM	STASIS
butabarbital sodium (Warning: may be habit-forming) 15 mg. (¼ gr.)	belladonna extract 10 mg. (⅙ gr.)	dehydrocholic acid, AMES 250 mg. (3¾ gr.)

Available: Bottles of 100 tablets.

for **spasm** and **stasis**

DECHOLIN® WITH BELLADONNA

belladonna extract, 10 mg. (⅙ gr.)
dehydrocholic acid, AMES, 250 mg. (3¾ gr.)

for **stasis** alone

DECHOLIN®

dehydrocholic acid, AMES, 250 mg. (3¾ gr.)

Available: Bottles of 100 and 500 tablets.

Average Adult Dose—DECHOLIN-BB, DECHOLIN with Belladonna, and DECHOLIN—1 or, if necessary, 2 tablets three times daily.
Contraindications: Biliary tract obstruction, acute hepatitis, and (DECHOLIN with Belladonna and DECHOLIN-BB) glaucoma or prostatic hypertrophy. 19562

AMES
COMPANY, INC
Elkhart • Indiana
Toronto • Canada



LIBRARIAN
NAT LIBRARY OF MED
WASHINGTON 25 D C

window to the inside

Physicians report that Librium-treated patients view themselves more objectively and are better able to communicate feelings to their doctor. Librium often provides a "window" through which inner motivation comes into focus.

You can observe this benefit in your own practice. Why not select several patients who may be particularly burdened by anxiety, and whose state of tension prevents them from seeing, or coping with, their inner problems. You will find that Librium helps materially to foster useful insights and to control presenting symptoms—without the unwanted effects of tranquilizers.

Consult literature and dosage information, available on request, before prescribing.

LIBRIUM® Hydrochloride—
7-chloro-2-methylamino-5-phenyl-3H-1, 4-benzodiazepine 4-oxide hydrochloride

LIBRIUM
THE SUCCESSOR TO THE TRANQUILIZERS

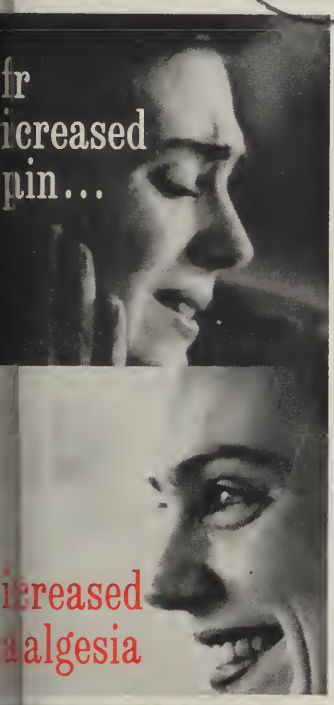
ROCHE
LABORATORIES
Division of Hoffmann-La Roche Inc.
Nutley 10, N. J.

935

JOURNAL OF THE Mississippi STATE MEDICAL ASSOCIATION

MAY 1962

Medical Library



Lilly

DARVON® COMPOUND-65

Darvon Compound-65 provides twice as much Darvon® as does regular Darvon Compound without increase in salicylate content or the size of the Pulvule®. Usual dosage is 1 Pulvule three or four times daily.

Darvon Compound		Darvon Compound-65
32 mg.	Darvon	65 mg.
162 mg.	Acetophenetidin	162 mg.
227 mg.	A.S.A.®	227 mg.
32.4 mg.	Caffeine	32.4 mg.

Darvon® Compound (dextro propoxyphene and acetylsalicylic acid compound, Lilly)
Darvon® (dextro propoxyphene hydrochloride, Lilly)
A.S.A.® (acetylsalicylic acid, Lilly)

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana.

220245

This Month . . . Clinical Evaluation Of Thyroid Function, Radiologic Seminar 1, Acute Cholecystitis

M.S.M.A

"crying solitary in lonely places"



DILANTIN®

(diphenylhydantoin, Parke-Davis)

permits a richer life for the epileptic

"It has been more than twenty years since the introduction of diphenylhydantoin sodium (DILANTIN Sodium) as an anticonvulsant substance. This drug marks a milestone in the rational approach to the management of the epileptic."[1] In grand mal and psychomotor seizures, DILANTIN is a drug of choice for a variety of reasons: • effective control of seizures[1-9] • oversedation is not a common problem[2] • possesses a wide margin of safety[3] • low incidence of side effects[3] • its use is often accompanied by improved memory, intellectual performance, and emotional stability.[10] DILANTIN (diphenylhydantoin, Parke-Davis) is available in several forms, including DILANTIN Sodium Kapseals,® 0.03 Gm. and 0.1 Gm., bottles of 100 and 1,000. Other members of the PARKE-DAVIS FAMILY OF ANTICONVULSANTS for grand mal and psychomotor seizures: PHELANTIN® Kapseals (Dilantin 100 mg., phenobarbital 30 mg., desoxyephedrine hydrochloride 2.5 mg.), bottles of 100. for the petit mal triad: MILONTIN® Kapseals (phensuximide, Parke-Davis) 0.5 Gm., bottles of 100 and 1,000; Suspension, 250 mg. per 4 cc., 16-ounce bottles. CELONTIN® Kapseals (methsuximide, Parke-Davis) 0.3 Gm., bottles of 100. ZARONTIN® Capsules (ethosuximide, Parke-Davis) 0.25 Gm., bottles of 100.

This advertisement is not intended to provide complete information for use. Please refer to the package enclosure, medical brochure, or write for detailed information on indications, dosage, and precautions.

REFERENCES: (1) Roseman, E.: Neurology **11**:912, 1961. *(2) Bray, P. F.: Pediatrics* **23**:151, 1959. *(3) Chao, D. H.; Druckman, R., & Kellaway, P.: Convulsive Disorders of Children, Philadelphia, W. B. Saunders Company, 1958, p. 120. (4) Crawley, J. W.: M. Clin. North America* **12**:317, 1958. *(5) Livingston, S.: The Diagnosis and Treatment of Convulsive Disorders in Children, Springfield, Ill., Charles C Thomas, 1954, p. 190. (6) Ibid.: Postgrad. Med.* **20**:584, 1956. *(7) Merritt, H. H.: Brit. M. J.* **1**:666, 1958. *(8) Carter, C. H.: Arch. Neural. & Psychiat.* **79**:136, 1958. *(9) Thomas, M. H., in Green, J. R., & Steelman, H. F.: Epileptic Seizures, Baltimore, The Williams & Wilkins Company, 1956, pp. 37-48. (10) Goodman, L. S., & Gilman, A.: The Pharmacological Basis of Therapeutics, ed. 2, New York, The Macmillan Company, 1955, p. 187.*

92462

PARKE-DAVIS

PARKE, DAVIS & COMPANY, Detroit 32, Michigan





For peptic ulcer gastric hyperacidity and gastritis...

In year-long study on peptic-ulcer patients

New Creamalin®
Antacid Tablets

*"...faster in onset of action...and for a longer period"**

"Clinical studies in 85 patients with duodenal ulcer ...confirmed the superiority of the new preparation [new Creamalin] over standard aluminum hydroxide preparations, in that prompt relief was achieved and maintained throughout the period of observation."*

Patients were followed for about one year.

New Creamalin promotes ulcer healing, permits less frequent feedings because it is so long-acting. Heartburn and epigastric distress were "...easily and adequately controlled...."* New Creamalin has the therapeutic advantage of a liquid antacid with the convenience of a palatable tablet. *It does not cause constipation.*

Each new Creamalin tablet contains 320 mg. of specially processed highly reactive dried aluminum gel (stabilized with hexitol) with 75 mg. of magnesium hydroxide. Minute particles offer a vastly increased surface area.

Dosage: Gastric hyperacidity—from 2 to 4 tablets as needed. Peptic ulcer or gastritis—from 2 to 4 tablets every two to four hours. *How Supplied:* Bottles of 50, 100, 200 and 1000.

Now also available—New Creamalin Improved Formula Liquid. Pleasant mint flavor—creamy pink color. Stabilized reactive aluminum and magnesium hydroxide gel (1 teaspoon equals 1 tablet). Bottles of 8 and 16 fl. oz.

Creamalin, trademark reg. U.S. Pat. Off.

*Schwartz, I. R.:
Current Therap. Res. 3:29, Feb., 1961.

Winthrop LABORATORIES New York 18, N. Y.

Volume III
Number 5
May 1962



JOURNAL of the Mississippi
STATE MEDICAL ASSOCIATION

• EDITOR
WILLIAM M. DABNEY, M.D.

• ASSOCIATE EDITORS
DEWITT HAMRICK, M.D.
GEORGE H. MARTIN, M.D.

• MANAGING EDITOR
ROWLAND B. KENNEDY

• EDITORIAL ASSISTANT
BETTY M. SADLER

• PUBLICATIONS COMMITTEE
LAWRENCE W. LONG, M.D.
Chairman
B. B. O'MARA, M.D.
WILLIAM E. LOTTERHOS, M.D.
and the Editors

• THE ASSOCIATION
LAWRENCE W. LONG, M.D.
President
C. P. CRENSHAW, M.D.
President-elect
C. G. SUTHERLAND, M.D.
Secretary-Treasurer
B. B. O'MARA, M.D.
Speaker
HOWARD A. NELSON, M.D.
Vice Speaker
ROWLAND B. KENNEDY
Executive Secretary
CHARLES L. MATHEWS
Assistant Executive Secretary

The JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION is owned and published by the Mississippi State Medical Association, founded 1856. Editorial, executive, and business offices, 735 Riverside Drive, Jackson, Mississippi; office of publication, 1201-5 Bluff Street, Fulton, Missouri. Subscription rate, $5 per annum; $1 per copy, as available. Advertising rates furnished on request. Second-class postage paid at the post office at Fulton, Missouri.

CONTENTS

ORIGINAL PAPERS

The Clinical Evaluation of Thyroid Function **201** A. LEWIS FARR, M.D.

Maternal Mortality Study, Case Report VII **207** WILLIAM B. WIENER, M.D.

Acute Cholecystitis **209** W. HOWARD KISNER, M.D.

SPECIAL FEATURES

CPC XXVIII **213** University of Mississippi

Radiologic Seminar I **220** ROBERT D. SLOAN, M.D.

EDITORIALS

Faith Healers: A Major Denomination Takes a Stand **223** 'Religious Quackery'

'Ist Nich Chiropractor; Ist Heilpraktiker!' **224** Cultists in Germany

The Washington Lobbies: Who Spends What? **224** Labor's Glass House

THIS MONTH

The President Speaking **219** 'Showdown on Socialism'

The Literature **227** National Library Week

Medical Organization **229** Around the State

Copyright 1962, Mississippi State Medical Association



Team

Each capsule of Panalba* contains two antibiotics that complement each other. They were carefully chosen for this purpose.

Panalba combines tetracycline (for its breadth of coverage) and novobiocin (for its unique effectiveness against staph).
That is why, in most infections of unknown etiology, when you use Panalba as your antibiotic of first resort, your treatment offers excellent chances for therapeutic success.

Upjohn

Panalba* product information

Supplied: Capsules, each containing Panmycin* Phosphate (tetracycline phosphate complex), equivalent to 250 mg. tetracycline hydrochloride, and 125 mg. Albamycin,* as novobiocin sodium, in bottles of 16 and 100.

Usual Adult Dosage: 1 or 2 capsules three or four times a day.

Side Effects: Panmycin Phosphate is well tolerated clinically and has a very low order of toxicity comparable to that of the other tetracyclines. Side reactions are infrequent and consist principally of mild nausea and abdominal cramps.

Leukopenia has occurred occasionally in patients receiving novobiocin. Rarely, other blood dyscrasias including anemia, pancytopenia, agranulocytosis and thrombocytopenia have been reported. In a recent report it was observed that three times as many newborn infants receiving novobiocin developed jaundice as control infants. For this reason, administration of novobiocin to newborn and young infants is not recommended, unless indication is extremely urgent because of serious infections not susceptible to other antibacterial agents.

The development of jaundice has also been reported in older individuals receiving Albamycin. Serious liver damage has developed in a few patients, which was more likely related to the underlying disease than to therapy with novobiocin. Although reports such as the above are rare, discontinuance of novobiocin is indicated if jaundice develops. If continued therapy appears essential because of a serious infection due to microorganisms resistant to other antibacterial agents, liver function tests and blood studies should be performed frequently, and therapy with novobiocin stopped if necessary.

In a certain few patients treated with this agent, a yellow pigment has been found in the plasma. The nature of this pigment has not been defined. There is evidence that it may be a metabolic by-product of novobiocin, since it has been reported to be extractable from the plasma (pH 7 to 8.1) with chloroform while bilirubin is not. These properties have been employed to differentiate the yellow pigment due to the metabolic by-product of novobiocin and bilirubin. However, recent reports indicate that this method of differentiation may be unreliable.

Urticaria and maculopapular dermatitis have been reported in a significant percentage of patients treated with Albamycin. Upon discontinuance of the drug, these skin reactions rapidly disappeared.

Warning: Since Albamycin possesses a significant index of sensitization, appropriate precautions should be taken in administering the drug. If allergic reactions develop during treatment and are not readily controlled by antihistaminic agents, use of the product should be discontinued.

Total and differential blood cell counts should be made routinely during the administration of Albamycin. If new infections appear during therapy, appropriate measures should be taken; constant observation of the patient is essential. If a yellow pigment appears in the plasma, administration of the drug should be continued only in urgent cases, and the patient's condition closely followed by frequent liver function tests. In case of the development of liver dysfunction, therapy with this agent should be stopped.

*TRADEMARK, REG. U.S. PAT. OFF.

COPYRIGHT 1962, THE UPJOHN COMPANY

DECEMBER, 1961



Think Clean!

Detergent, mucolytic, antibacterial, penetrating... qualities that establish Trichotine as a leading vaginal cleanser—both as a therapeutic measure unto itself, and as a cleansing adjunct to therapy.[1-3] A detergent, Trichotine penetrates the rugal folds, removes mucus debris, vaginal discharge, and cervical plugs.[1-4] Surface tension is 33 dynes/cm. (vinegar is 72 dynes/cm.). Trichotine relieves itching and burning—is virtually non-irritating—leaves your patient feeling clean and refreshed. It establishes and maintains a normal, healthy vaginal mucosa in routine vaginal cleansing, as well as in therapy. Whenever you think of a vaginal irrigant, think of the detergent cleansing action of Trichotine.

detergent action

for vaginal irrigation Trichotine®

POWDER

ACTIVE INGREDIENTS: Sodium lauryl sulfate, sodium perborate, sodium borate, thymol, eucalyptol, menthol, methyl salicylate. AVAILABLE: In jars of 5, 12 and 20 oz. powder. REFERENCES: 1. Stepto, R. C., and Guinant, D.: J. Nat. M.A. 53:234, 1961. 2. Karnaky, K. J.: Medical Record and Annals 46:296, 1952. 3. Folsome, C. E.: Personal Communication. 4. MacDonald, E. M., and Tatum, A. L.: J. Immunology 59:301, 1948.

THE FESLER COMPANY, INC., KENILWORTH, NEW JERSEY



a relaxed mind in a relaxed body

with

Trancopal®

Brand of chlormezanone

effective TRANQUILIZER ■ potent MUSCLE RELAXANT

When you prescribe Trancopal you can see how this "tranquilaxant" speedily helps the anxious patient. It quiets his psyche — and this quieting helps relax tense muscles. It eases muscle spasm — and this easing helps put the mind at rest.

DeNyse[1] notes that the effect of Trancopal as a quieting agent ". . . may play a part in the skeletal muscle relaxing results obtained." Gruenberg[2] used Trancopal to treat patients with musculoskeletal disorders, and commented: "In addition to relieving spasm and pain, with subsequent improvement in movement and function, Trancopal reduced restlessness and irritability in a number of patients."

Trancopal has an unsurpassed record of safety. Very few side effects occur with Trancopal. You may see them in only about two out of a hundred patients, and they will almost always be mild.

Available: 200 mg. Caplets® (green colored, scored), bottles of 100
100 mg. Caplets (peach colored, scored), bottles of 100

Dosage: Adults, 1 Caplet (200 mg.) three or four times daily;
children (5 to 12 years), from 50 to 100 mg. three or four times daily.

Before prescribing, consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.

References: 1. DeNyse, D. L. : M. Times *87*:1512 (Nov.) 1959.
2. Gruenberg, F.: Current Therap. Res. *2*:1 (Jan.) 1960.

Winthrop LABORATORIES New York 18, N.Y.

1649M



Kent's development of the "Micronite" filter revolutionized the cigarette industry. Shortly after introduction of Kent with its famous filter, the swing to filter cigarettes got started in earnest. And no wonder. Kent with the "Micronite" filter refines away harsh flavor, refines away hot taste, makes the taste of a cigarette mild and kind.

Yes, Kent is kind-tasting to your taste buds, kind-tasting to your throat. Your taste buds become clear and alive with Kent.

• • •

Your taste buds will tell you why you'll feel better about smoking with the taste of Kent.

A PRODUCT OF P. LORILLARD COMPANY · FIRST WITH THE FINEST CIGARETTES · THROUGH LORILLARD RESEARCH

© 1961 P. LORILLARD CO.

American Rhinologic Society To Sponsor Meet

An introductory course on "Expanded Surgery of the Nasal Septum and Closely Related Structures" will be presented at the St. Michael Hospital, Milwaukee, May 16-19 with the co-operation of the American Rhinologic Society.

Dr. Maurice H. Cottle of Chicago, professor of otorhinolaryngology at the Chicago Medical School, will be the guest director. Dr. Cottle will be assisted by a distinguished guest faculty.

The course will consist of lectures, laboratory, and surgical demonstrations emphasizing (1) examination and diagnosis of nasal form and function; (2) maxilla-premaxilla approach to nasal septum surgery; (3) variations of septum operations; (4) medial and lateral osteotomies; (5) mobilizing and modifying the nasal pyramid; (6) treatment of nasal fractures; (7) repair of septum perforations; (8) surgical management of nasal atrophy, atrophic rhinitis, ozena (endonasal microplasty).

The local committee consists of Drs. Irwin E. Gaynon, Charles J. Finn, and Frank G. Treskow. Class membership is limited. The fee of $150 includes meals at the hospital.

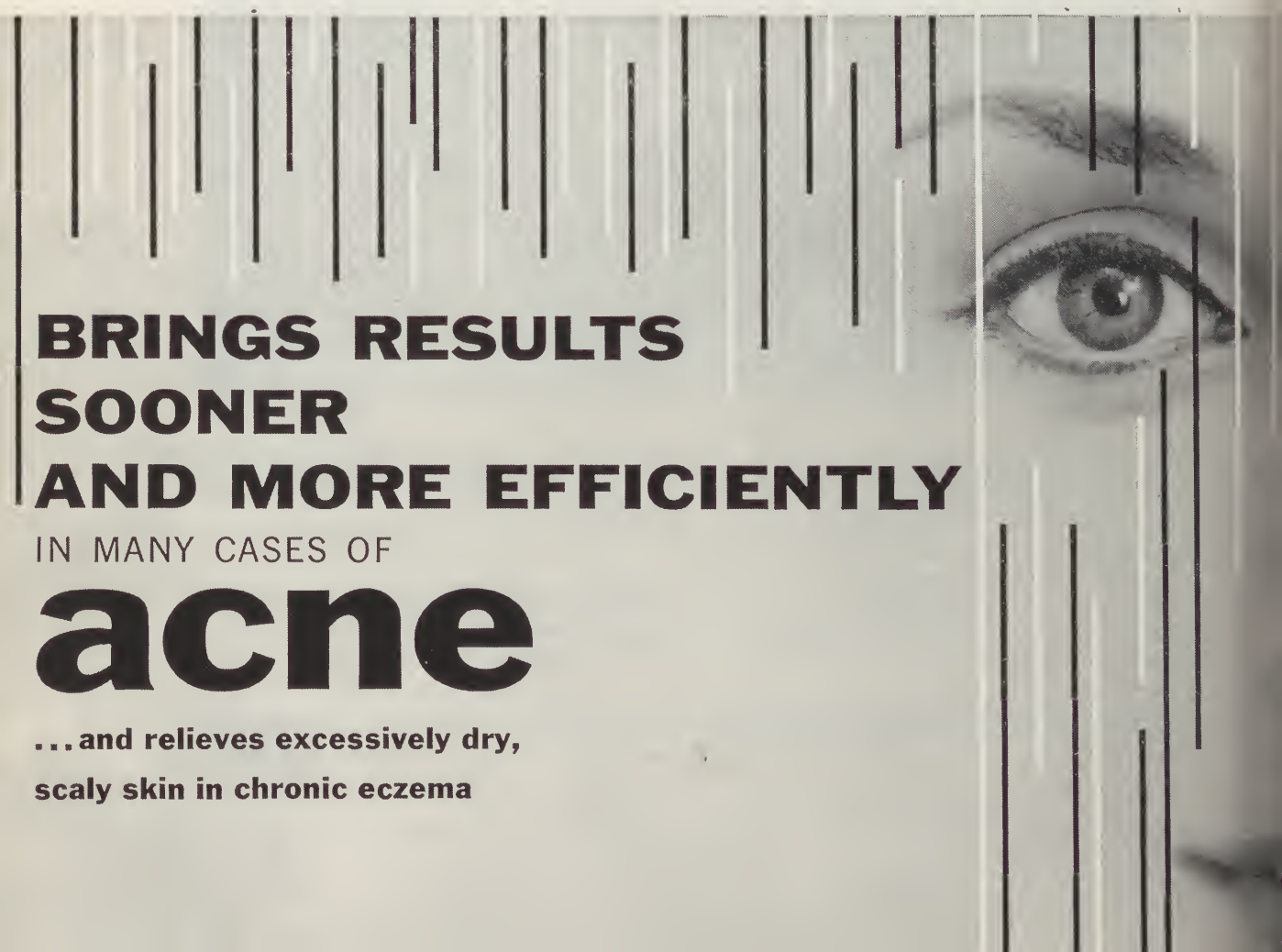
For further information write to the Educational Committee, American Rhinologic Society, 530 Hawthorne Place, Chicago 13, Ill.

SAMA To Meet In Nation's Capital

Outstanding leaders from medicine, government, and the entertainment world will appear on the program of the 12th Annual Convention of the Student American Medical Association to be held in Washington, D. C., May 10-13, 1962. President William B. Weglicki, Jr., University of Maryland senior and general chairman of the three-day session indicates that more than 2,000 medical students, interns, and residents will attend the gathering in the Mayflower Hotel.

The scientific sessions will include a panel presentation sponsored by the Upjohn Company which will feature leaders in endocrinology. Among them will be Dr. William E. Barfield, Medical College of Georgia; Dr. Jay J. Gold, Chicago; Dr. Joseph W. Goldzieher, San Antonio, and Dr. Robert W. Kistner, Harvard Medical School.

"The Clinical Spectrum of Primary Myocardial



Disease" will be the subject for discussion by Dr. W. Proctor Harvey, professor of medicine and chief, Division of Cardiology, Georgetown University Medical Center. Dr. Harvey's appearance is made under a grant of the Merck Postgraduate Program.

The three Grand Award winners of the 1962 SAMA Mead Johnson Forum will present their papers at the Friday afternoon (May 11) session. Following their presentation, the audience will hear an address by Ivan A. Nestingen, Under Secretary of Health, Education and Welfare.

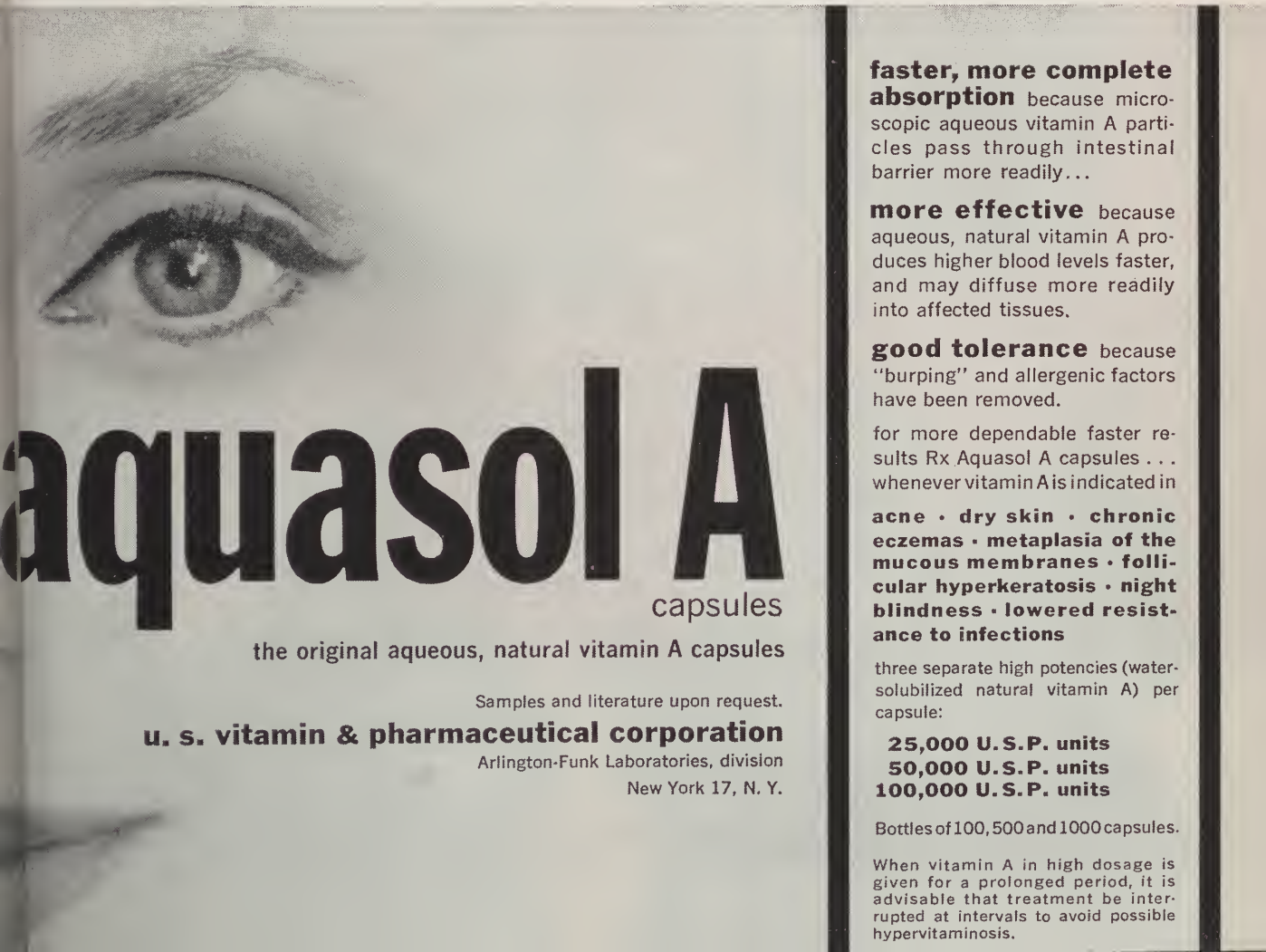
Additional features in the science of medicine include the expanded Scientific Exhibit with the 1962 Lakeside Awards for excellence in this area. The SAMA-Eaton Medical Art Salon will show the winners in the 1962 competition in medical photography, photomicrography, and medical illustration.

Vice President Lyndon Johnson has been invited to address the House of Delegates on Thursday afternoon, May 19. Dr. Leo J. Gehrig, chief of the Medical Program Division of the Peace Corps, will outline plans for his division at a session, Saturday morning, May 12.

Official luncheons will be tendered by medicine's largest associations for the House of Delegates. Dr. James Murphy, president of the American Academy of General Practice, will speak at his group's luncheon on Thursday, May 10. Dr. Hugh Hussey, Jr., chairman of the Board of Trustees of the American Medical Association, will speak at the AMA gathering Saturday noon, May 12. Senator John Tower (Texas) will deliver the address at the luncheon honoring the 1962 Grand Awards winners in the "In My Opinion" competition sponsored by Wyeth Laboratories.

Television's most famous doctor, Ben Casey, has been invited to address the House of Delegates Saturday afternoon. He will also receive an Honorary Membership in SAMA for his contributions to the public understanding of the responsibilities and work load of the resident physician. James Moser, creator of "Ben Casey" will be similarly honored at the same time.

President Weglicki, in announcing the 1962 program, also extends a cordial invitation to all physicians and friends to visit the SAMA meeting. He comments: "Registration fees are nominal, and I'm certain every doctor who observes a SAMA meeting will be reassured that the medical care of tomorrow will be in capable, understanding hands. I sincerely hope that many of our future colleagues will be able to attend at least part of our 1962 meeting."



For your elderly patients...

an effective GERIATRIC antiarthritic with distinctive Safety Factors

When arthritis afflicts the elderly, it often poses a critical problem in the choice of an effective antiarthritic that will not aggravate other common geriatric conditions . . . such as osteoporosis, hypertension, edema, hyperglycemia, peptic ulcer, renal, cardiac or hepatic damage, latent chronic infection, or emotional instability.

Pabalate-SF, the geriatric antiarthritic, is specially indicated for such patients.

As Ford and Blanchard have reported,[1] Pabalate-SF has "a pronounced antirheumatic effect in the majority of patients with degenerative joint diseases." It produces "a more uniformly sustained [salicylate blood] level for prolonged analgesia and, therefore, is superior to aspirin in the treatment of chronic rheumatic disorders."

Yet Pabalate-SF is marked by distinctive **safety factors:** its potassium salts cannot contribute to sodium retention . . . its enteric coating assures gastric tolerance . . . and its clinical record reflects none of the serious reactions frequently precipitated by therapy with corticosteroids or pyrazolone derivatives. **It has no contraindications except personal idiosyncrasy.**

1. Ford, R. A., and Blanchard, K: Journal-Lancet 78:185, 1958.

Formula: In each persian-rose enteric-coated tablet: potassium salicylate 0.3 Gm., potassium para-aminobenzoate 0.3 Gm., ascorbic acid 50.0 mg.

Also available:
PABALATE, when sodium salts are permissible.
PABALATE-HC, for conservative steroid therapy.

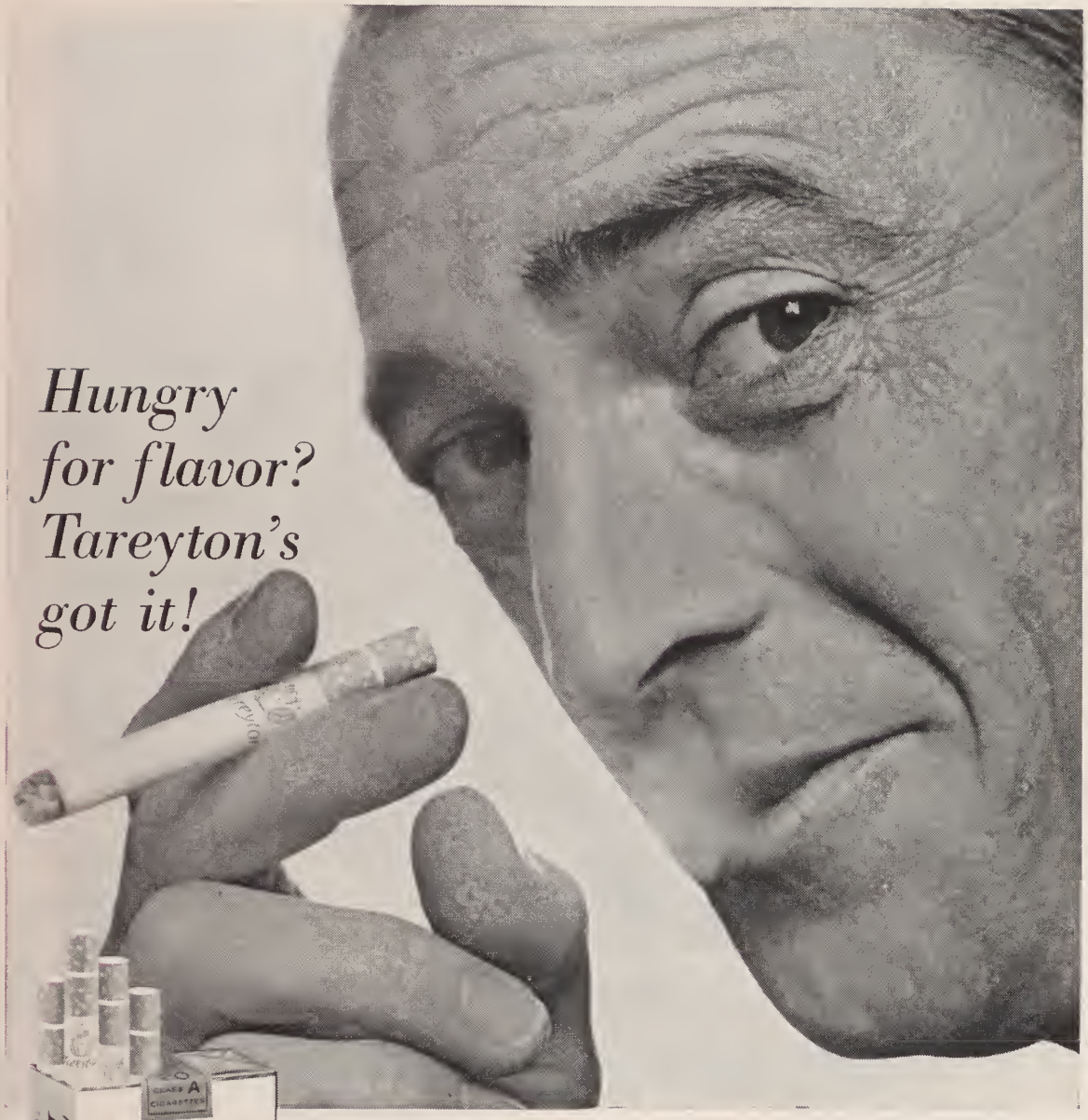
A. H. ROBINS CO., INC. • Richmond, Virginia

Robins

Pabalate®-SF

—the new, convenient way to prescribe **PABALATE-SODIUM FREE**







Flavor you never thought you'd get from any filter cigarette!

If you're hungry for flavor, Tareyton's got plenty—and it's *plenty good!* Quality tobaccos at their peak go *into* Tareyton. Then the famous Dual Filter *brings out* the best taste of these choice tobaccos. Try a pack of Dual Filter Tareytons—you'll see!

Dual Filter makes the difference



Product of *The American Tobacco Company*—
"Tobacco is our middle name" © A. T. Co.

DUAL FILTER Tareyton



In acne—24-hour-a-day skin care with antibacterial pHisoHex®

(contains 3% hexachlorophene)

In acne, pHisoHex, antiseptic detergent, provides *continuous* antibacterial action against the infection factor. With exclusive, frequent use, pHisoHex builds up an effective antibacterial film on the skin that resists rinsing—lasts from wash to wash. pHisoHex augments any other therapy of acne.

When pHisoHex was used for washing by 42 patients with acne, "the results were uniformly encouraging. . . ."[1] "No patient failed to improve."[1]

pHisoHex cleans the skin of acne patients better than soap because it is forty per cent more surface active. It is a powerful emulsifier of oil, an action particularly beneficial in acne. Moreover, it cleans the orifices of the sebaceous glands, sweat glands and hair follicles more rapidly and more thoroughly than soap. pHisoHex lacks the potentially harmful qualities of soap. It is nonalkaline, nonirritating and hypoallergenic.[2]

For acne, prescribe pHisoHex—and get improved results.

pHisoAc® Cream dries, peels and masks lesions. Use it with pHisoHex washings to help prevent comedones, pustules and scarring. Contains colloidal sulfur 6 per cent, resorcinol 1.5 per cent and hexachlorophene 0.3 per cent.

pHisoHex is available in unbreakable squeeze bottles of 5 oz. and 1 pint—and in combination package with pHisoAc Cream.

1. Hodges, F. T.: *GP* 14:86, Nov., 1956.
2. Guild, B. T.: *Arch. Dermat.* 51:391, June, 1945.

Winthrop LABORATORIES
New York 18, N.Y. (1665M)



Relieves Anxiety and Anxious Depression

The outstanding effectiveness and safety with which Miltown relieves anxiety and anxious depression—the type of depression in which either tension or nervousness or insomnia is a prominent symptom — has been clinically authenticated time and again during the past six years. This, undoubtedly, is one reason why physicians still prescribe meprobamate more often than any other tranquilizer in the world.

Miltown®

meprobamate (Wallace)

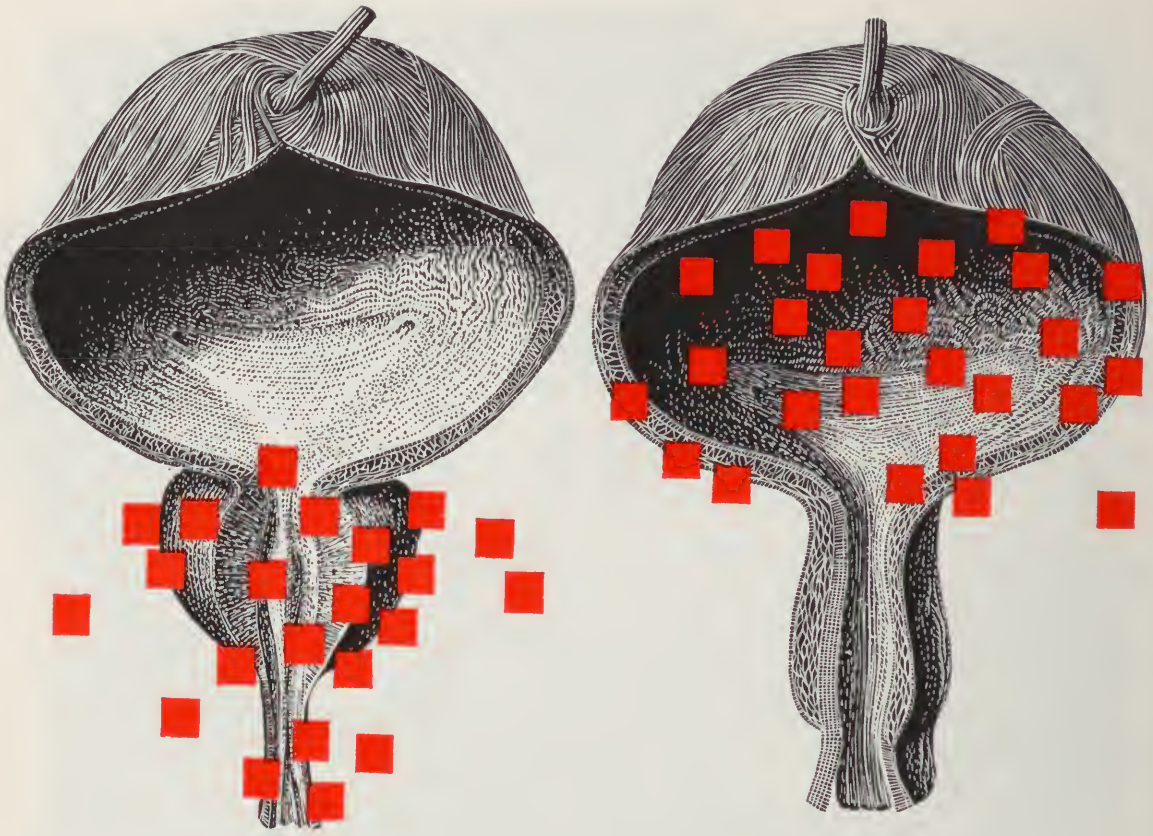
Usual dosage: One or two 400 mg. tablets t.i.d.
Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50. Also as MEPROTABS® – 400 mg. *unmarked*, coated tablets; and in *sustained-release* capsules as MEPROSPAN®-400 and MEPROSPAN®-200 (containing respectively 400 mg. and 200 mg. meprobamate).

WALLACE LABORATORIES / *Cranbury, N. J.*

CM-6709

Clinically proven in over 750 published studies

1. Acts dependably – without causing ataxia or altering sexual function
2. Does not produce Parkinson-like symptoms, liver damage or agranulocytosis
3. Does not muddle the mind or affect normal behavior



Serenium

Squibb Ethoxazene (Diamino-Ethoxy-Azobenzene Hydrochloride)

Quickly eliminates pain and burning in the lower urinary tract

At real savings to your patients

Serenium provides **quick, localized analgesic action** in acute and chronic urinary tract infections with **only 1 tablet** t.i.d. Your patient is assured of the prompt action of Serenium by the harmless orange-red color of the urine; and he will feel good about the **low prescription cost,** too.

Supply: Bottles of 50 and 500 chocolate-covered tablets. Each tablet contains 0.1 Gm. of Squibb Ethoxazene. For full information see your Squibb Product Reference or Product Brief.

Serenium® is a Squibb trademark

SQUIBB *Squibb Quality—the Priceless Ingredient*

SQUIBB DIVISION Olin



VIGOR

In all of life, only unflagging energy in meeting problems can bring progress.

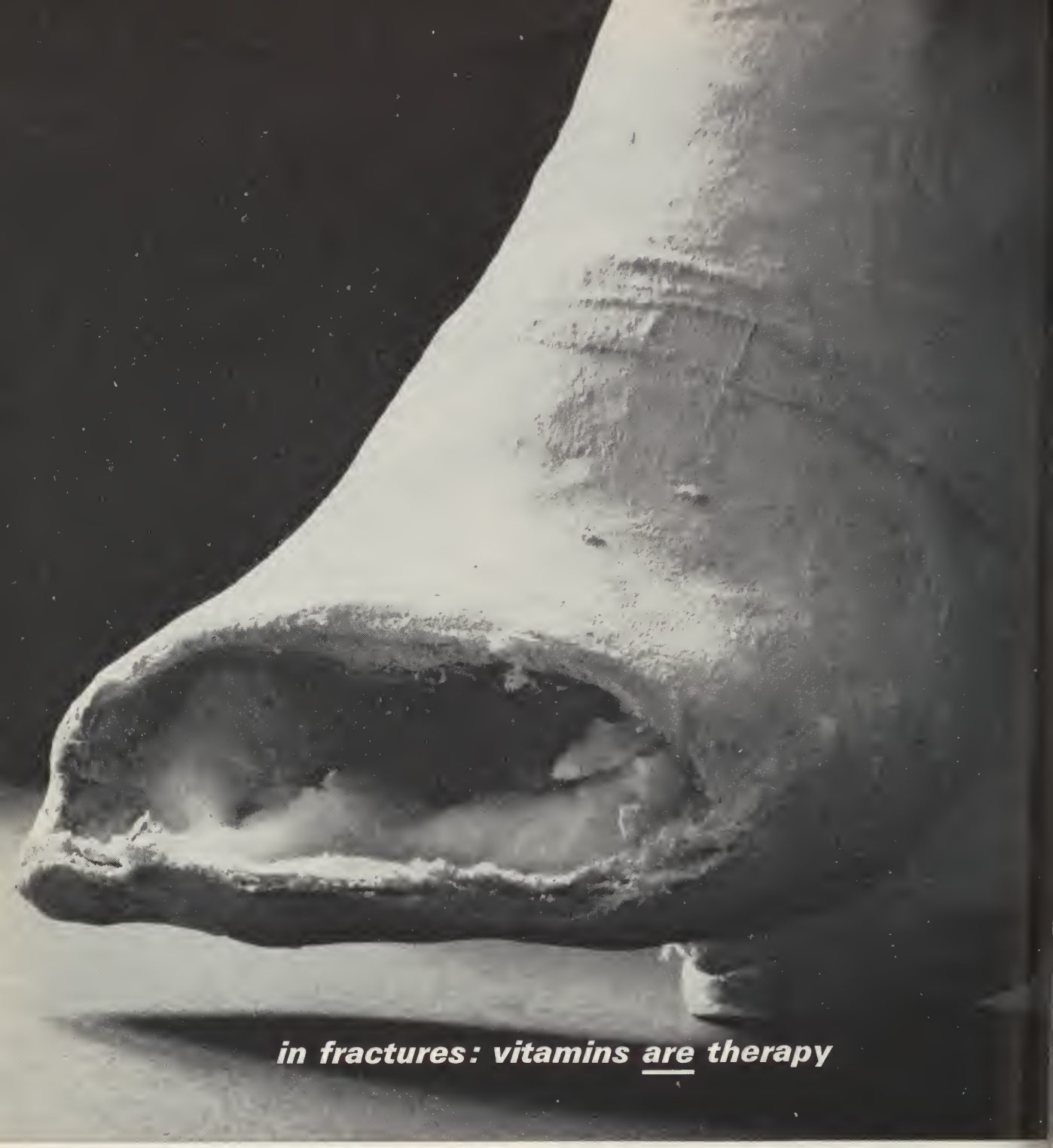
Behind the success of Mississippi Blue Cross-Blue Shield has been the continuing urge to increase its value to the public. Take the matter of "Master Health" benefits. This is one of the greatest steps forward in the entire field of prepaying health care costs. And it was pioneered by Mississippi Blue Cross-Blue Shield. Over and above the many regular Blue Cross-Blue Shield benefits, our Master Health Plan covers:

- ☐ diagnostic X-ray and laboratory examinations up to $50 per member annually, in or out of the hospital.
- ☐ accidental injury benefits up to $300 for any treatment, in or out of the hospital.
- ☐ major medical benefits up to $5,000, in or out of the hospital.

Blue Cross-Blue Shield protection is good for doctors, good for hospitals and good for the patients. It's the best health care protection money can buy.

BLUE CROSS
BLUE SHIELD

MISSISSIPPI HOSPITAL & MEDICAL SERVICE / 530 EAST WOODROW WILSON AVE. / JACKSON, MISS. / TELEPHONE EM 6-1422



Few factors are more fundamental to tissue and bone healing than nutrition. Therapeutic allowances of B and C vitamins are important for rapid replenishment of vitamin reserves which may be depleted by the stress of fractures. Metabolic support with STRESSCAPS is a useful adjunct to an uneventful recovery. Supplied in decorative "reminder" jars of 30 and 100.

Each capsule contains:	
Vitamin B_1 (Thiamine Mononitrate)	10 m
Vitamin B_2 (Riboflavin)	10 m
Niacinamide	100 m
Vitamin C (Ascorbic Acid)	300 m
Vitamin B_6 (Pyridoxine HCl)	2 m
Vitamin B_{12} Crystalline	4 mcg
Calcium Pantothenate	20 m

Recommended intake: Adults, 1 capsule dai or as directed by physician, for the treatme of vitamin deficiencies.

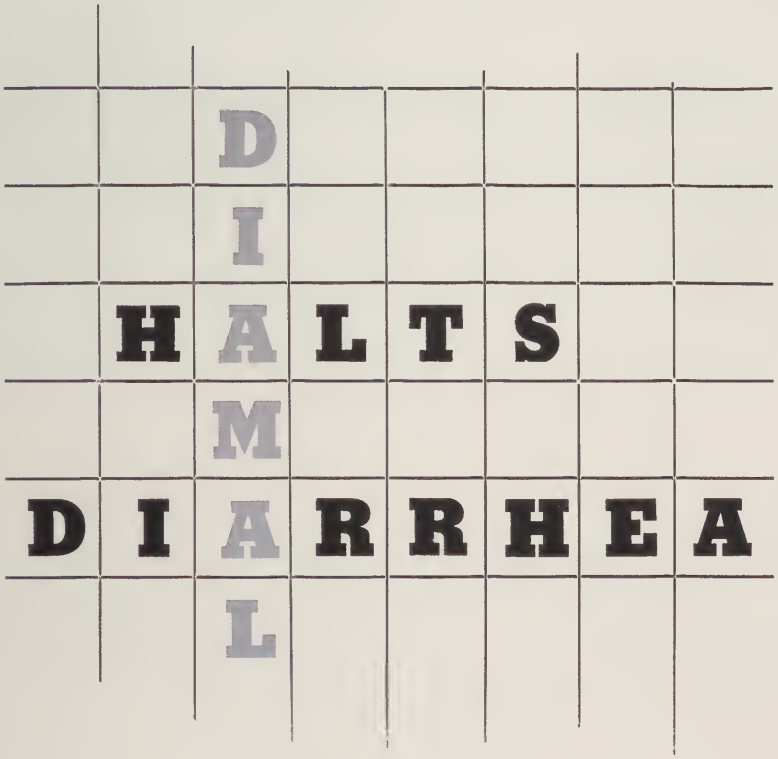
LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N.Y.

STRESSCAPS®

Stress Formula Vitamins Lederle

AMID LABORATORIES
INCORPORATED

It's no therapeutic puzzle:



Producers of Pharmaceuticals
of Highest Standards of Quality

AMID LABORATORIES
INCORPORATED

490 E. WOODROW WILSON AVE. JACKSON, MISS.

A SUBSIDIARY OF MISSISSIPPI INDUSTRIES, INC.



PERCODAN BRINGS *SPEED*...DURATION... AND DEPTH TO ORAL ANALGESIA

in the wide middle region of pain

PERCODAN®

(Salts of Dihydrohydroxycodeinone and Homatropine, plus APC) TABLETS

fills the gap between mild oral and potent parenteral analgesics

■ acts in 5-15 minutes ■ relief usually lasts 6 hours or longer ■ constipation rare ■ sleep uninterrupted by pain

Literature on request

Endo®

ENDO LABORATORIES
Richmond Hill 18, New York

AVERAGE ADULT DOSE: 1 tablet every 6 hours. May be habit-forming. Federal law allows oral prescription. *Also Available:* Percodan®-Demi: the complete Percodan formula, but with only half the amount of salts of dihydrohydroxycodeinone and homatropine.

Each scored, yellow Percodan* Tablet contains 4.50 mg. dihydrohydroxycodeinone HCl, 0.38 mg. dihydrohydroxycodeinone terephthalate (warning: may be habit-forming), 0.38 mg. homatropine terephthalate, 224 mg. acetylsalicylic acid, 160 mg. acetophenetidin, and 32 mg. caffeine.

*U.S. Pats. 2,628,185 and 2,907,768

NEWSLETTER

MISSISSIPPI STATE MEDICAL ASSOCIATION
JACKSON, MISSISSIPPI

May 1962

Dear Doctor:

Two key Old Age Assistance enactments by the legislature moved Mississippi nearer a permanent Kerr-Mills program. Final approval on HB's 278 and 279 will permit state to exceed old ceiling of $40 per month OAA benefits and to expend funds for locally controlled hospital care.

> Both measures require means tests for benefits and permit guardianship for non compos mentis recipients. MSMA representatives testified before Senate committee but stressed Kerr-Mills principle rather than mechanics of bills.

Losses from Mississippi's floods, freezes, tornadoes, and winter storms warrant special tax deductions, says IRS. Guide for claiming special deductions, "How the Federal Income Tax Applies to Hurricanes, Floods, Tornadoes, Other Disasters, and Thefts," is free at any Internal Revenue Service office.

The Tom Dooley Tribute Fund, founded to continue the work of the famed jungle doctor, is bankrupt. Directors of fund have petitioned federal courts for decree, stating that debts are $19,500 against $1,700 assets. Dr. Dooley died of cancer last year soon after being honored by Congress for medical work in Laos.

Federal government will tighten enforcement against illicit trade in "bennies" and "yellowjackets" if Dodd-Wiley bill is enacted. Sponsored by Senators Dodd (D., Conn.) and Wiley (R., Wis.), measure would double violation penalties in sale of amphetamines and barbiturates, require registration of manufacturers, and have pharmacists keep records of sales to all except physicians. Designated S. 1939, bill is supported by Pharmaceutical Manufacturers Association.

The Mississippi medical spotlight swings to Jackson next week with opening of the big 94th Annual Session. It's MSMA's best with seven sections, Symposium on Space Medicine, 15 specialty societies and events, 80 speakers, and over 75 exhibits. House of Delegates meets May 7.

Sincerely,

Rowland B. Kennedy
Executive Secretary



DATELINE - MEDICAL AMERICA

White House Production On 'Doctor Split' Flops

Washington - With flash bulbs, TV, and various Hollywood trimmings, President Kennedy and HEW Secretary Ribicoff paraded 27 physicians before newsmen to say they supported the King-Anderson compulsory federal care-for-the-aging bill. Implication sought was defection of physicians from medical organization's position. Nobody was surprised because group was made up of old line federal care advocates including Baehr, DeBakey, Draper, Esselstyn, Means, Lee, and like company. Most will conclude that 27 out of 261,000 physicians hardly constitutes a serious split in medical ranks.

Osteopathic College Is Accredited As Medical School

Los Angeles - Both AMA and the Association of American Medical Colleges gave accreditation blessings to the Los Angeles College of Osteopathic Physicians and Surgeons, now redesignated the California College of Medicine. Transfer of institution to medical school category is part of physician-osteopath marriage in California. June 1962 graduates, who started out to be osteopaths, will receive M.D. degrees.

New York Health Department Releases Binghamton Report

Binghamton, N. Y. - Dr. Herman E. Hilleboe, N. Y. state health commissioner, said that "Preliminary findings indicate that the deaths of six infants and the illness of others in the nursery at Binghamton General Hospital were caused by toxemia due to high salt intake." The early March tragedy was page one when babies allegedly got salt for sugar in formula. Report stated that substitution of salt for sugar did not occur in formula room or nursery.

Republican Congressmen Back 'Bow Bill' For Eldercare

Washington - Republican National Chairman William E. Miller has written every GOP member of Congress asking support for proposed Bow bill as an alternative to H.R. 4222, the King-Anderson measure. Newest care-for-aging bill would allow special tax credit of $125 per year for seniors to purchase health insurance. Where individual has no resources or doesn't earn enough to pay taxes, a treasury certificate for $125 would be issued for insurance purchase.

Suicide Rate Is Up In Iron Curtain, Welfare State Nations

New York - New studies disclose that communist and socialist nations are leading the league in suicides. West Berlin had rate of 33.9 per 100,000, East Germany 28.4, and Japan and Hungary 25.7 each. Rate for U.S. is 11.5 but American Negroes are low at 4.3. Lowest suicide rates are found in Italy, Spain, Colombia, and Costa Rica, the "que sera sera" countries.



Appetizing foods are good reason to stay on a diet

How to help your patient stick to a diabetic diet

The secret ingredient in a successful diet is acceptance. A diabetic diet that contains measured amounts of appetizing and popular foods is sure to win the cooperation of the patient. All the more so if the variety of dishes is great.

Bouillon or soup might start the meal. Chops, chowder, stews, broiled tomatoes, even spaghetti and meat balls can be adapted as tempting main dishes in a diabetic diet.

Sugar-free preserves, water-packed fruits and sorbitol ice cream make delicious stand-ins for sweets. For parties, low-calorie wafers and raw vegetables make good nibbling.



A glass of beer can add zest to a patient's diet

Carbohydrate 9.4 Gm; Protein 0.8 Gm; Fat, 0 Gm; Calories 104/8 oz. glass (Average of American Beers)

United States Brewers Association, Inc.

For reprints of this and 11 other diet menus, write us at 535 Fifth Avenue, N.Y. 17, N.Y.

IT'S EASY
TO SEE
THAT THE
BIG 94TH
IS
THE GREATEST!

With or without the bifocals, anybody can see that MSMA's 94th Annual Session is the greatest! Seven scientific sections: EENT, General Practice, Medicine, Obstetrics and Gynecology, Preventive Medicine, Pediatrics, and Surgery! Fifteen specialty societies, 90 exhibits, medical alumni dinners, the House of Delegates, golf tournament, skeet shoot, the Auxiliary—something for everybody every minute—and the medical headliner of the decade, the Symposium on Space Medicine. Run—don't walk—to the nearest mailbox and send your reservation request to Mr. O. F. McDade, MSMA Housing Bureau, Hotel Heidelberg, Jackson. Ask for reservations at either of the co-headquarters hotels, the Heidelberg (no suites available) or the King Edward. Or stay at the better-than-ever Robert E. Lee, Walthall, or new Sun 'N Sand. But whatever you do, hurry!

MSMA'S 94th Annual Session
Jackson, May 7-10, 1962

BAYER

BAYER

1¼ Grs. Ea.
FLAVORED

Living up to a family tradition

There are probably certain medications which are special favorites of yours, medications in which you have a particular confidence.

Physicians, through ever increasing recommendation, have long demonstrated their confidence in the uniformity, potency and purity of Bayer Aspirin, the world's first aspirin.

And like Bayer Aspirin, Bayer Aspirin for Children is quality controlled. No other maker submits aspirin to such thorough quality controls as does Bayer. This assures uniform excellence in both forms of Bayer Aspirin.

You can depend on Bayer Aspirin for Children for it has been conscientiously formulated to be the best tasting aspirin ever made and to live up to the Bayer family tradition of providing the finest aspirin the world has ever known.

Bayer Aspirin for Children—1¼ grain flavored tablets—Supplied in bottles of 50.

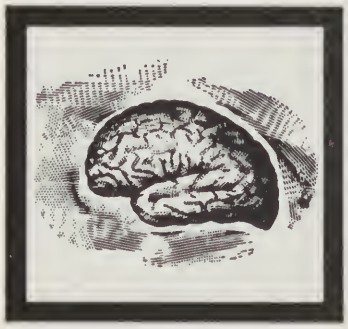
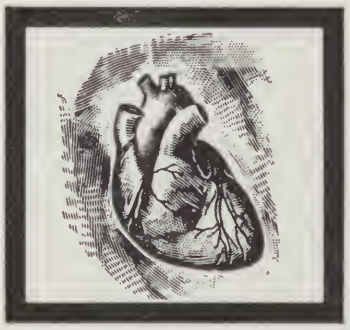
● We welcome your requests for samples on Bayer Aspirin and Flavored Bayer Aspirin for Children.

New
GRIP-TIGHT CAP
for Children's
Greater Protection



THE BAYER COMPANY, DIVISION OF STERLING DRUG INC., 1450 BROADWAY, NEW YORK 18, N. Y.

4 essential actions in one Rx: to bring most hypertensive patients under control



- **central action** inhibits sympathetic vasoconstrictor impulses, improves cerebral vascular tone
- **renal action** increases renal blood flow as well as urine volume and sodium and chloride excretion
- **cardiac action** prolongs diastole, decreases heart rate and cardiac output, thus easing strain on the myocardium
- **vascular action** blocks effects of pressor substances, enables blood vessels to dilate more fully

Supplied: SER-AP-ES Tablets (salmon pink), each containing 0.1 mg. Serpasil, 25 mg. Apresoline hydrochloride, and 15 mg. Esidrix.

For complete information about Ser-Ap-Es (including dosage, cautions, and side effects), see current Physicians' Desk Reference or write CIBA, Summit, New Jersey.

SERPASIL® (reserpine CIBA)
APRESOLINE® hydrochloride (hydralazine hydrochloride CIBA)
ESIDRIX® (hydrochlorothiazide CIBA) 2/3002MB

Most hypertensive patients need more than one drug...but most hypertensive patients need only one Rx: SER-AP-ES®

CIBA Summit, New Jersey

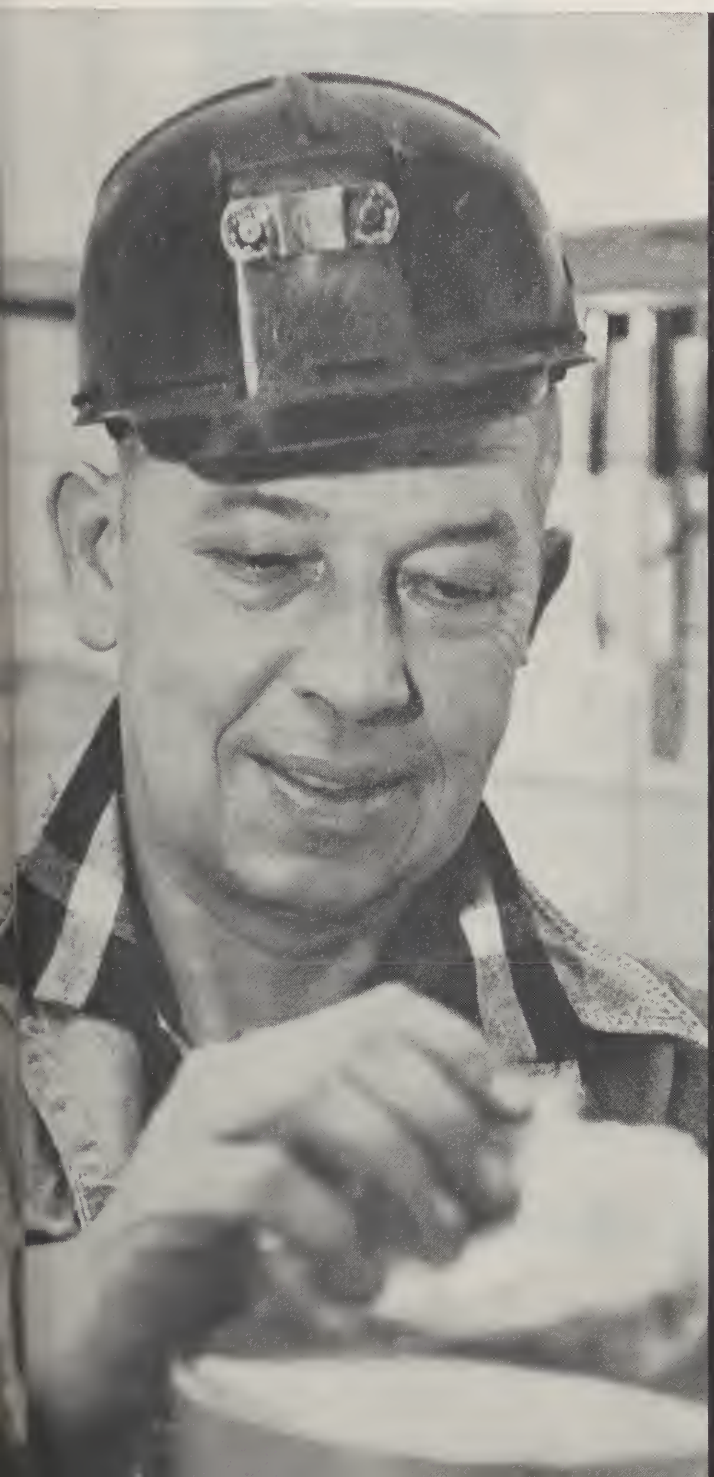
Long-term effectiveness of METICORTEN continues to be demonstrated in J. G., the arthritic miner whose case was first reported a year ago and who is leading a fully active life today, *after seven years of therapy.*

Schering



before METICORTEN—Rheumatoid arthritis commencing in 1949 with severe shoulder joint pain.... Subsequent involvement of elbows and peripheral joints with swelling and loss of function.... Complete helplessness by 1951 (fed and dressed by wife).... Unable to work despite cortisone, gold and analgesics.... Hydrocortisone ineffective in 1954. **since METICORTEN**—Prompt improvement with METICORTEN, begun April 2, 1955.... Returned to work that same year.... Maintained to date on METICORTEN, 10-15 mg./day, without serious side effects and without losing a day's work at the mine because of arthritis.... Joint pain still controlled and full use of hands and limbs maintained. The foregoing information is derived directly from a case history provided by Joel Goldman, M.D., Johnstown, Pa. Original photograph of Dr. Goldman's patient taken November 10, 1960; follow-up photographs, November 29, 1961. METICORTEN,® brand of prednisone. For complete details, consult latest Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Bloomfield, New Jersey.

S-010



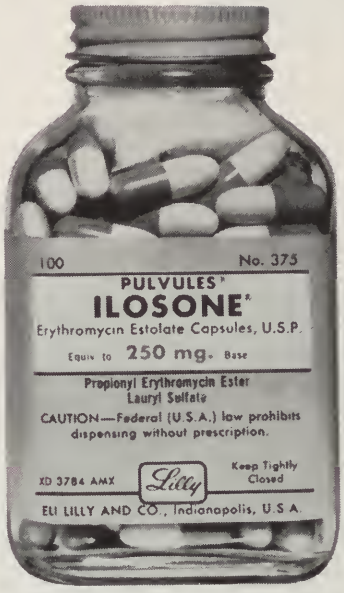
remember this arthritic miner, doctor? he's still working after another successful year (his 7th) on Meticorten®

brand of prednisone









sign of infection?

symbol of therapy!

Ilosone® is better absorbed—It provides high, long-lasting levels of antibacterial activity—two to four times those of other erythromycin preparations—even on a full stomach. **Ilosone is bactericidal**—It provides bactericidal action against streptococci, pneumococci, and some strains of staphylococci. **Ilosone activity is concentrated**—It exerts its greatest activity against the gram-positive organisms—the offending pathogens in most common bacterial infections of the respiratory tract and soft tissues.

The usual dosage for infants and for children under twenty-five pounds is 5 mg. per pound every six hours; for children twenty-five to fifty pounds, 125 mg. every six hours. For adults and for children over fifty pounds, the usual dosage is 250 mg. every six hours. In more severe or deep-seated infections, these dosages may be doubled. Ilosone is available in three convenient forms: Pulvules®—125 and 250 mg.*; Oral Suspension—125 mg.* per 5-cc. teaspoonful; and Drops—5 mg.* per drop, with dropper calibrated at 25 and 50 mg.

Lilly

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana. Ilosone® (erythromycin estolate, Lilly) *Base equivalent

232589

Ilosone works to speed recovery

JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION
May, 1962, Vol. III, No. 5

ORIGINAL PAPERS

The Clinical Evaluation of Thyroid Function

A. LEWIS FARR, M.D.
Greenville, Mississippi

Because a number of patients have complaints suggesting either over or under activity of the thyroid, the problem of evaluating thyroid function is a frequent one in clinical medicine. The author discusses pertinent anatomy and physiology, the clinical manifestations of thyrotoxicosis and hypothyroidism, and concludes with a review of laboratory tests.

THE PROBLEM of evaluating thyroid function arises repeatedly in every phase of clinical medicine, because such a large proportion of patients have complaints suggesting either over or under activity of this gland. Nervousness and laziness are universal human failings and these traits are cardinal symptoms of the extremes in the thyroid spectrum. Neither thyrotoxicosis nor myxedema is common, but both occur with sufficient frequency, have such serious results if untreated, and are at the same time so susceptible to control that they should not be permitted to pass unrecognized.

Both conditions can usually be diagnosed easily by an adequate history and physical examination, with laboratory procedures being used only for confirmation and control of therapy. Dysfunction, however, is occasionally so mild, or so effectively masked by cardiac disease, neurologic manifestations, senility, or drugs as to make positive diagnosis difficult. Unfortunately, there is no such thing as a perfect laboratory test or combination of tests for thyroid activity. The physician must rely rather upon clinical judgment, based soundly on a knowledge of thyroid physiology and its derangements, if he is to do these patients justice.[1, 2, 3, 4]

The normal thyroid gland measures about 4 cm. from pole to pole. The width of each lobe is 2 to 2.5 cm. and the thickness about 1 to 2 cm. The average weight is 15 to 20 gm., but this may be as high as 30 gm. in goitrous areas of this country.[5]

The functional unit is the follicle. Here iodide is removed by the thyroid cell from the blood, with a 25 fold increase in concentration in the euthyroid state, and up to 350 fold in toxic goiter.[6] This concentration, referred to as the iodide trapping mechanism, is probably an enzymatic, oxygen dependent process, but is poorly understood as yet.[7]

Iodide is then oxidized to molecular iodine, by a peroxidase enzyme, and either this or hypoiodite formed by its reaction with water, in turn iodinates tyrosine at the 3- and 5-positions.[8] Two molecules of diiodotyrosine are then coupled to form 1-tetraiodothyronine or 1-thyroxin.[9] This substance accounts for most of the hormonal activity in both gland and plasma. Coupling of one molecule each of mono- and diiodotyrosine, or

Read before the Section on Medicine, 93rd Annual Session, Mississippi State Medical Association, Biloxi, May 9-11, 1961.

the removal of the 5′-iodine from thyroxin produces triiodothyronine, which is present in small amounts in gland and plasma, but is three to five times as potent as is thyroxin in its peripheral action. The tyrosine radicals are iodinated while bound within a complex protein. The end product is thyroglobulin, an extremely large molecule, which is then secreted for storage into the lumen of the follicle. Thyroglobulin is split by certain proteases and peptidases, and thyroxin and triiodothyronine diffuse into the blood. Iodinated tyrosines are deiodinated enzymatically, and both iodine and tyrosine reincorporated in another thyroglobulin molecule. Neither diiodo- nor monoiodotyrosine appear in normal blood.

Thyroid hormone circulates in combination with protein. Electrophoretic analysis shows it divided between globulin, prealbumin, and albumin fractions. At physiological pH values most of both thyroxin and triiodothyronine are bound by globulin.[10]

The rate of hormone synthesis and release varies with the total mass of acinar cells, iodine supply, and the amount of pituitary hormone known as thyrotrophin acting on the gland. Average gland weight in adults is about 20 gm., but euthyroidism can be maintained with 3 gm. or less of tissue. Iodide is necessary as a substrate in the amount of 75 to 100 micrograms daily for optimal hormone synthesis, but when furnished in large amounts suppresses both synthesis and release. Thyrotrophin increases the mass of thyroid tissue and hormone release directly, and iodide trapping and hormone synthesis proceed more rapidly as cell volume increases.

The mechanism and site of thyroid hormone action upon the cell remains unknown. It is known to increase the activities of many respiratory enzymes, and, under certain conditions in excess to uncouple oxidation from phosphorylation, but neither of these explains all of its effects.[11, 12] In the light of present knowledge it seems prudent to assume with Kendall that it simply pushes all cellular activities at a faster rate.[13] No one knows for sure whether one or several principles act peripherally. Much recent evidence indicates that triiodothyronine may be the active principle, or, perhaps, this may be broken down further to triiodothyroacetic acid before exerting its effect upon the cell. The rates of turnover of thyroid hormones vary with their own levels. In euthyroid individuals, thyroxin is removed at a rate of about 10 per cent and triiodothyronine 30 per cent daily,[14, 15] about 60 micrograms of hormonal iodine, nearly all of which is in thyroxin, being broken down and resynthesized. This corresponds to about 2 grains of desiccated thyroid, 0.3 mg. of l-thyroxine, or 0.1 mg. of l-triiodothyronine in activity.

PATHOLOGIC PHYSIOLOGY

Thyrotoxicosis is that condition produced by an excess of thyroid hormone. The commonest form is associated with diffuse hyperplasia of the gland, and this produces the full blown picture of Grave's disease including exophthalmos. Other cases are caused by toxic nodular goiter, in which hyperfunction is limited to one or more adenomas and exophthalmos is absent. Nodularity, however, not infrequently occurs coincidentally with diffuse hyperplasia. Except for exophthalmos and goiter, thyrotoxicosis may be reproduced by ingestion of excessive thyroid hormone.

Myxedema may be either primary or secondary. In adults most primary cases are due to thyroid atrophy, in which no thyroid tissue can be palpated in life, and little or none found at autopsy. Others are caused by chronic thyroiditis, either Hashimoto's, which is more frequent, or Riedel's. Rare cases are caused by carcinoma. Cretinism may result from iodine deficiency in utero and infancy, or inherited inability to synthesize thyroid hormone.[16]

Inability to oxidize iodide, couple iodinated tyrosines into thyronines, deiodinate tyrosines, and release thyronines from thyroglobulin have been described in cretins. It is likely that certain cases of familial goiters without discrepancies of total thyroid hormone effects are due to milder examples of the same defects. Secondary myxedema is caused by a lack of thyrotrophin, usually precipated by pituitary destruction by tumor, Simmond's disease or surgery, and rarely due to a specific deficiency of thyrotrophin production.

The most common etiology of myxedema is the treatment of thyrotoxicosis, with incidences of 3 to 5 per cent following subtotal thyroidectomy and 3 to 10 per cent with radioiodine therapy. Prolonged overdosage of thioureylene drugs, and both severe iodine deficiency and massive iodine therapy produce myxedema with goiter. Ingesting large amounts of goitrogenic foods, such as cabbage or rutabaga, and therapy with thiocyanates, para-aminosalicylic acid, resorcinol, and cobalt have all caused goitrous hypothyroidism. Perchlorate is theoretically capable of doing the same.[17]

Thioureylene drugs such as methimazole, propylthiouracil, and heomercazole all inhibit hormone synthesis by interfering with the iodination

of thyronines, most likely by blocking the oxidation of iodide ion. Diminished plasma hormone levels increase thyrotrophin levels, and thyroid hyperplasia results. Iodide supplies below 75 micrograms daily result in diminished hormone synthesis, countered by increased thyrotrophin levels and hyperplasia. If the deficiency is severe and prolonged enough, hypothyroidism results. A dosage of 6 mg. of iodide daily suppresses all parameters of thyroid function in Grave's disease.[18] The mechanism involved is thought to be thyrotrophin inhibition, resulting in rapid decrease in hormone release, and a slower diminution in hormone production as the cell mass decreases.

This same iodide dosage suppresses accumulation and discharge of radioactive iodine in the euthyroid gland also, but has no effect upon total blood levels of hormone or basal metabolism. Large doses of iodide suppress formation of thyroid hormone directly for up to 26 hours in experimental animals, after which the effect disappears.[19] In occasional individuals large doses of iodide, such as are used in asthma and emphysema, produce goiter and myxedema.[20]

The administration of thyroid hormone to euthyroid individuals suppresses thyroid function markedly, but has essentially no effect on most persons with hyperthyroidism or exophthalmos without hyperthyroidism.[21] Two or three grains of desiccated thyroid daily suffices to restore practically all individuals with myxedema to a euthyroid state. The same effect may be achieved with about 0.3 mg. of 1-thyroxine or 0.1 mg. of 1-triiodothyronine. At this time, desiccated thyroid, U.S.P., is the preparation of choice for most therapy, as it furnishes a physiological mixture of the two pure principles, gives just as predictable a response, and is much cheaper than the others. Triiodothyronine may be used to advantage where rapid onset of hormonal effects are needed, as in myxedema coma, or preparation of patients with untreated myxedema for urgent surgery, as a maximal response is obtained much more rapidly.[1, 2, 17]

THYROTOXICOSIS

The typical thyrotoxic patient has been aptly described as resembling "a frog in a hot shovel," and at least moderate nervousness is complained of by most patients. Other points to search for in the history are heat intolerance and excessive sweating; weakness and easy fatigability; weight loss despite excessive food intake; palpitation; and changes in the eyes and skin.

The presence or absence of exophthalmos and lid lag are usually obvious, as are fine tremors of the outstretched fingers, lids, and tongue. Goiter is rarely absent, and failure to find it usually indicates careless examination. Feeling the gland is greatly facilitated by having the patient take repeated swallows of water as the neck is palpated, and manubrial percussion and x-ray may be needed to demonstrate low lying goiters. The pulse is nearly always fast, although the true basal rate may be between 80 and 90 in occasional patients. The pulse pressure is uniformly wide, but true diastolic hypertension is not produced by hyperthyroidism. One of the most constant and valuable signs is that of a warm, moist skin that is smooth and soft as velvet.

If toxicity is slight, many manifestations may be absent or equivocal. Old people with cardiac disease may show nothing except for skin changes, goiter, and rapid pulse. Any patient with unexplained heart failure or tachycardia, particularly if auricular fibrillation is present, should be a thyroid suspect. Thyrotoxicosis may also cause and masquerade behind syndromes exactly simulating myasthenia gravis, amyotrophic lateral sclerosis, or familial periodic paralysis, and a considerable proportion of people reported with these neurologic disturbances secondary to hyperthyroidism have not had palpable glands. Reserpine has been observed to relieve the signs and symptoms of thyrotoxicosis except for goiter, and to lower the metabolic rate to normal, so that diagnosis may be made only by protein bound iodine determinations or radioactive iodine studies.[22]

HYPOTHYROIDISM

The picture of myxedema is so very typical that, once seen, it is not easily forgotten. The history is usually that of a gradually increasing sensitivity to cold, and lethargy, with pronounced slowing down in all normal activities. The husky, low pitched, rather coarse voice, with little or no inflection, and slow speech immediately suggest hypothyroidism. The skin is coarse, thick, dry, and cool, with a slightly yellowish pallor, and this, coupled with the thickened features, puffy eyelids, and large tongue should enable one to clinch the diagnosis, before the patient has time to undress for examination. The generalized edema of the skin is nonpitting, but pitting of the lower extremities is rather common. The pulse is usually slow or normal. Blood pressure may be almost anything, and, contrary to what one might expect, a large proportion of patients exhibit mild to moderate hypertension. The heart is enlarged in most cases, although frank heart failure is seen only rarely. There is usually a mild to moderate anemia, that may be microcytic, normocytic, or

macrocytic. Constipation is usually present and responds poorly to laxatives. One rather striking and constant sign is a very slow relaxation time on eliciting the tendon reflexes. Paresthesias are among the earliest symptoms and deafness and vertigo are common late in the course of the disease. Although the typical patient is good natured and humorous, anxiety and depression are common and psychoses are occasionally observed. Myxedema coma is being recognized with increasing frequency.

LABORATORY TESTS

The tests commonly used in thyroid disease fall into four categories: (1) the basal metabolic rate, (2) plasma cholesterol, (3) protein bound iodine, (4) radioactive iodine studies.

The metabolic rate is easily determined. If one makes sure that it is performed under basal, or nearly basal conditions, fresh soda lime is used, and leaks ruled out, he should be able to handle most thyroid problems without other laboratory aid. The physician must recognize the fact that the test is elevated or depressed by numerous causes other than thyroid dysfunction, and that there is nothing sacred about the usual normals of plus 10 to minus 10 per cent. Only 95 per cent of persons with normal thyroid function have readings between minus 18 and plus 22 per cent,[23] and readings of minus 30 or plus 30 are not rare in patients who have no thyroid disease whatsoever. On the other hand proven cases of thyrotoxicosis have occurred with B.M.R.'s of plus 10 to 15,[24] and, rarely, myxedema with readings of the order of minus 20 per cent. It is evident that the B.M.R. is neither highly specific nor sensitive.

The commonest fault in erroneous elevations of the B.M.R. is that the patient is not in a basal state, either because of nervousness, activity, food taking, or smoking preceding the test. No food should be taken following an early supper the previous evening. Moderate sedation usually suffices to lower the elevation due to nervous tension to normal. In severe psychoneurosis it may be necessary to give the patient enough barbiturate to actually induce sleep and measure the S.M.R. rather than the B.M.R. This lowers the rate an average of about 15 per cent in the absence of anxiety, but frequently drops it by 30 per cent or more if tension is a factor. This practically always enables one to rule out the neurotic patient. Other causes of elevated B.M.R.'s are hypertension, calcific aortic stenosis, or marked cardiomegaly from other cause, pernicious anemia, leukemia, pheochromocytoma, acromegaly, polycythemia, pulmonary disease, pregnancy, and certain forms of collagen disease.

Low B.M.R.'s of the order of minus 20 or 30 per cent are not uncommon in normal people, and particularly, it seems to me, in healthy young women. Abnormal conditions associated with depressed metabolism are malnutrition, Addison's disease, nephrosis, anasarca, and psychoneuroses. Dr. J. H. Means has described one neurotic male whose B.M.R.'s ranged from minus 32 to 48 per cent in whom prolonged study revealed no evidence of myxedema or other organic disease.[1]

The foregoing may make the B.M.R. seem worthless, but actually, it is still probably the most useful one test in our thyroid armamentarium. Most patients who have thyrotoxicosis or myxedema give values sufficiently deviated from normal to clinch the diagnosis when considered with the clinical picture. It parallels more closely the severity of either disease than do any of the others, and it is the handiest of the laboratory measures in assaying the response to therapy. Keating and others have found it reliable in about 90 per cent of cases of thyroid dysfunction, although other workers have assessed its accuracy at 65 to 70 per cent.[25, 26]

The serum cholesterol is of little use in the diagnosis of thyrotoxicosis as most values are in the normal range, although definitely lowered levels lend confirmation. A markedly elevated cholesterol is typical of myxedema and one rarely sees a value below 250 mg. per cent in this condition. Occasionally, however, the cholesterol may be normal or even low, and this is more likely to occur when the thyroid deficiency is secondary to hypopituitarism, or associated with starvation or pernicious anemia. The cholesterol is worthless in differentiating myxedema and nephrosis as it is high in both conditions.

The serum protein bound iodine (or PBI) determination is a very useful procedure, when clearly elevated or depressed, but here, too, there is an overlap of both hyper- and hypothyroidism with the normal range, which extends from about 3.5 to 8.0 micrograms per cent. This determination is technically difficult and involves such small amounts of iodine, that errors from contamination are a serious problem. It is not suitable for use in small hospital laboratories, but reliable results may be obtained from an increasing number of commercial laboratories. Large doses of inorganic iodide elevate the levels, but this can be obviated by extraction with butanol, as can errors produced by release of abnormal iodinated protein, as in thyroiditis or goitrous cretinism.[27] Organic iodides, particularly x-ray contrast media,

elevate levels for weeks or months and cannot be separated by butanol extraction. Pregnancy and estrogen therapy elevate levels up to 50 per cent because of increases in thyroid binding globulin. Thyrotoxicosis can be differentiated with an accuracy of about 90 per cent and myxedema, 80 per cent, by the PBI.[28]

Studies involving radioactive iodine, or I_{131}, are varied and extremely useful. Most of the work done thus far has been based on the iodine accumulating ability of the thyroid, with radioactivity being measured over the gland at 24 hours, or the urinary excretion assayed, which gives figures inversely related to the thyroidal uptake. The ratio of protein bound iodine to total plasma radioactivity 48 to 72 hours after I_{131} administration have also been widely used.[29] These tests have a specificity in careful hands of around 90 per cent, but there are pitfalls.[25, 30, 31, 32] Previous administration of thioureylene drugs renders them unreliable as it may either raise or lower the uptake, and some patients with nodular goiters have high uptakes when hyperthyroidism is absent. High uptakes without thyrotoxicosis or exophthalmos are almost always lowered to or below normal by administration of thyroid or thyroxin for three weeks, or triiodothyronine for one week. This has made it possible to increase the diagnostic accuracy in untreated thyrotoxicosis by the I_{131} uptake to better than 95 per cent cent.[33, 34]

Ingestion of inorganic iodide in relatively small amounts, 1.5 to 6 mg., depresses I_{131} uptakes markedly for days or weeks, and it must be remembered that over three hundred drugs contain enough of the ion to exert an effect. The patient must be off thyroid at least one, and, preferably, three or four weeks for reliable results. X-ray contrast media may suppress uptakes for one year or longer. Both PBI levels, protein bound I_{131}, and I_{131} uptakes may remain falsely elevated in people previously hyperthyroid, who have been made euthyroid by therapy.

The in vitro red cell uptake of I_{131} labeled triiodothyronine shows great promise, and is about as accurate as are the PBI and I_{131} uptakes. This test does not require administration of radioactivity to the patient and is available from the large commercial laboratories.[35]

THE TEST OF THERAPY

The final and, in capable hands, the most reliable test of thyroid function is that of therapy. In either increased or decreased activity we have means of therapy which are specific and dependable, and have effects that are reversible, and, if properly used, harmless. Means and his associates have shown by careful study that the response of myxedema to desiccated thyroid is quite uniform.[1]

If the patient with myxedema is placed on daily doses of 90 to 120 mg. of U.S.P. thyroid, a remarkable change is observed. Within several days he feels much better, and thinks, moves, speaks, and eats in a more normal fashion. The urine output rises, the edema disappears, and the thick, puffy features revert to normal. Within two or three weeks both B.M.R. and patient are back to normal, except for some residual abnormalities of the skin and hair, and the anemia, which clear very slowly.

Most patients can be safely started on a dose of this order, unless there is evidence of coronary disease or pituitary insufficiency. If coronary disease is present, the dosage should be started at 15 mg. and gradually increased. If pituitary failure is present, the patient should be placed on about 20 mg. of hydrocortisone daily, because of the danger of producing adrenocortical insufficiency, after which thyroid may be safely started in usual doses. If the history is at all suggestive of hypopituitarism, adrenal function should be thoroughly evaluated. All post-menopausal female patients should probably have FSH determinations, and if the value is low, complete adrenal studies should be done. In severe primary myxedema, also, it is wise to use adrenal steroids during early therapy, because the adrenals may be functionally inadequate.

Patients with hypometabolism of extrathyroidal origin may show some subjective improvement on thyroid, but they will not respond in the definite and dramatic fashion of the true hypothyroid. The recently described syndrome of "metabolic insufficiency" has been shown to be nonexistent.[36] Furthermore, people in this category, like other euthyroid individuals, can frequently tolerate 6 to 10, or rarely, as much as 25 grains of U.S.P. thyroid without marked toxicity, where the individual without thyroid tissue gets persistent toxic symptoms if the dose is pushed above 4 grains. It should be remembered that when prolonged administration of full thyroid dosage is discontinued in a euthyroid individual the B.M.R. drops to subnormal levels and symptoms of mild hypothyroidism are apt to appear. This response is usually maximal in two to four weeks, after which the rate gradually rises to normal and symptoms disappear over one to two months.[37]

The response to iodide in thyrotoxicosis is almost as uniform as that of myxedema to thyroid. Nearly all patients when placed on 5 mg. or more of iodide daily will show remarkable symptomatic improvement, and decline of the B.M.R. of 3 to 4 per cent daily over the first two or three weeks.

Nervousness is usually decreased in the first several days, followed by a progressive drop in the pulse and weight gain. Rare patients are said not to respond to iodine, but such cases have rather uniformly been so severe as to be obvious. The presence of a clear-cut iodine response leaves no doubt as to diagnosis, whether the initial B.M.R. be plus 50 or 5 per cent.

The thioureylene drugs may also be used as an aid in the therapeutic confirmation of suspected thyrotoxicosis, but the response is considerably slower. Also, these drugs, unlike iodide, may depress the metabolism of euthyroid individuals.

CONCLUSIONS

1. Deranged thyroid function can usually be detected by careful history and examination, although certain cases may be so mild and atypical, or so thoroughly masked by complicating disease or previous therapy as to make definite diagnosis impossible without further study.

2. Available laboratory procedures furnish great aid in diagnosis, but no test is available that possesses sufficient sensitivity or specificity as to be absolutely reliable in certain borderline cases.

3. A carefully observed response to therapy affords the soundest basis for the definite diagnosis of atypical thyrotoxicosis or myxedema. Such therapy is harmless and reversible, and we are therefore blessed with a peculiar situation where hindsight can be used to strengthen and confirm foresight. ★★★

404 Alexander

REFERENCES

1. Means, J. H.: Diseases of the Thyroid, Philadelphia, J. B. Lippincott Company, 1948.
2. Williams, R. H.: Textbook of Endocrinology, Philadelphia, W. B. Saunders Company, 1955.
3. Rawson, R. W., and Rall, J. E.: Diseases of the Thyroid in Duncan's Diseases of Metabolism, W. B. Saunders Company, 1952.
4. Hamolsky, M. W., and Freedberg, A. S.: The Thyroid Gland, New England J. Med. 262:23 (Jan. 7) 1960.
5. Rice, C. O.: Histologic Structure of Normal Thyroid Gland; Variations and Their Significance in the Interpretation of Pathologic Conditions of the Thyroid Gland, Arch. Surg. 36:96-110 (Jan.) 1938.
6. Childs, D. S.; Keating, F. R.; Rall, J. E.; Williams, M.; and Power, M. H.: Effect of Varying Quantities of Inorganic Iodide (Carrier) on Urinary Excretion and Thyroidal Accumulation of Radioiodine in Exophthalmic Goiter, J. Clin. Invest. 29:726-738 (June) 1950.
7. Slingerland, D. W.: Influence of Various Factors on Uptake of Iodine by Thyroid, J. Clin. Endocrinol. 15:131-141 (Jan.) 1955.
8. De Robertis, E., and Grasso, R.: Peroxidase Activity of the Thyroid Gland under Normal and Experimental Conditions, Endocrinology 38:137-146 (March) 1946.
9. Harington, C. R., and Barger, G.: Chemistry of Thyroxine; Constitution and Synthesis of Thyroxine, Biochem. J. 21:169-181, 1927.
10. Christensen, L. K., and Litonjua, A. D.: Is Thyroxine Binding by Pre-albumin of Physiologic Importance?, J. Clin. Endocrinol. 21:104-106, 1961.
11. Barker, S. E.: Mechanism of Action of Thyroid Hormone, Physiol. Rev. 31:205-243 (July) 1951.
12. Lardy, H. A., and Feldott, G.: Metabolic Effects of Thyroxine in Vitro, Ann. New York Acad. Sc. 54:636-648, 1951.
13. Kendall, E. C.: Physiologic Action of Thyroxin, Endocrinology 3:156 (April-June) 1919.
14. Ingbar, S. H., and Freinkel, N.: Simultaneous Estimation of Rates of Thyroxine Degradation and Thyroid Hormone Synthesis, J. Clin. Invest. 34:808-819 (June) 1955.
15. Sterling, K.; Lashof, J. C.; and Man, E.: Disappearance from Serum of I_{131}-labeled l-thyroxine and l-triiodothyronine in Euthyroid Subjects, J. Clin. Invest. 33:1031-35 (July) 1954.
16. Blizzard, R. M.: Inherited Defects of Thyroid Hormone Synthesis and Metabolism, Metabolism 9:232-47 (March) 1960.
17. Asper, S. P., and Wiswell, J. G.: Symposium on Pathologic Physiology of Thyroid Diseases: Physiology and Treatment of Myxedema, Am. J. Med. 20:732-744 (May) 1956.
18. Thompson, W. O.; Thompson, P. K.; Thorp, E. G.; and Brailey, E. G.: Range of Effective Iodine Dosage in Exophthalmic Goiter, Arch. Int. Med. 45:430-455 (March) 1930.
19. Morton, M. E.; Chaikoff, I. L.; and Rosenfeld, S.: Inhibiting Effect of Inorganic Iodide on the Formation in Vitro of Thyroxine and Diiodotyrosine by Surviving Thyroid Tissue, J. Biol. Chem. 154:381, 1944.
20. Burrows, B.; Niden, H. H.; and Barclay, W. R.: Goiter and Myxedema Due to Iodide Administration, Ann. Int. Med. 52:858-70 (April) 1960.
21. Greer, M. A., and Smith, G. E.: Method for Increasing Accuracy of Radioiodine Uptake as Test for Thyroid Function by Use of Desiccated Thyroid, J. Clin. Endocrinol. 14:1374-1384 (Nov.) 1954.
22. Canary, J. J.; Schaaf, M.; Duffy, B. J.; and Kyle, L. H.: Effects of Oral and Intramuscular Administration of Reserpine in Thyrotoxicosis, New England J. Med. 257:435-41 (Sept. 5) 1957.
23. Robbins, E. D.: Discussion in Werner, S. C., and Hamilton, H. B.: Hyperthyroidism without Apparent Hypermetabolism, J.A.M.A. 146:453 (June 2) 1951.
24. Werner, S. C., and Hamilton, H. B.: Hyperthyroidism without Apparent Hypermetabolism, J.A.M.A. 146:450-453 (June 2) 1951.
25. Keating, F. R.; Haines, S. F.; Power, M. H.; and Williams, M. M.: Radioiodine-accumulating Function of Human Thyroid Gland as Diagnostic Test in Clinical Medicine, J. Clin. Endocrinol. 10:1425-1464 (Nov.) 1950.
26. Perkoff, G. T.: Usefulness of Basal-Metabolic Rate Measurements, Medical Science 9:374, 1961.
27. Man, E. B., and Bondy, P. K.: Clinical Significance of Serum Butanol-Extractable Iodine, J. Clin. Endocrinol. 17:1373-1380 (Nov.) 1957.
28. Starr, P.; Petit, D. W.; Chaney, A. L.; Rallman, H.; Aiken, J. B.; Jamieson, B.; and Kling, I.: Clinical Experience with Blood Protein-bound Iodine Determination as Routine Procedure, J. Clin. Endocrinol. 10:1237-1250 (Oct.) 1950.
29. Silver, S.; Fieber, M. H.; and Yohalem, S. B.: Blood Levels after Tracer Doses of Radioactive Iodine in the Diagnosis of Thyroid Disorders, Am. J. Med. 13:725-729, 1952.
30. Werner, S. C.; Hamilton, H. B.; and Leifer, B.:

(Turn to page 226)

Case Report VII of the Maternal Mortality Study: Successful Postmortem Cesarean Section

WILLIAM B. WIENER, M.D.
Jackson, Mississippi

Case Report VII of MSMA's Maternal Mortality Study concerns a postmortem cesarean section with delivery of a living baby. The case history is reported and the Committee's evaluation given on the four points of adequacy of data, cause of death, avoidability, and responsibility. A short discussion of the frequency of postmortem cesarean sections with the successful delivery of a living child and the proper management of such cases is presented.

THE FOLLOWING CASE was selected because it was well documented with an autopsy report and because it presented an unusual situation—a postmortem cesarean section with delivery of a living baby.

CASE NO. 232-04630-60

This 33-year-old colored female, gravida 5, para 3, aborta 1, had been seen antepartally at regular intervals by her physician. Her last menstrual period had been Feb. 16, 1960, and the expected date of delivery was Nov. 23, 1960. She had had frequent urinary tract infections over the past eight to ten years and had been on oral antibiotics at intervals during the past three years. Urethral dilatations had also been done. The last urethral dilatation had been performed in April 1960, and antibiotics had last been taken for this condition about two to three months before admission. Other than the urinary infection, she had an uneventful antepartal course.

She was admitted in the early morning five days before her expected date of confinement, in what was considered early labor. Soon after admission, the contractions stopped. At about noon of that day, 1 minim of Pitocin was given subcutaneously in an attempt to start labor, but it was ineffective. At bedtime, Seconal grains one and one-half was given orally.

The patient slept well until around 1:00 a.m. at which time she began to have uterine contractions again. The nurse on duty immediately called the attending physician and he started for the hospital. Just prior to his arrival the patient stopped breathing. The attending physician made a diagnosis of maternal death. The abdomen was immediately opened and a living male delivered. The baby had some slight circulatory embarrassment at first but the color was good and he immediately cried. He had some retractions of the chest wall for approximately six hours. The pediatrician, in examining the baby, felt that he was perfectly normal. The baby remained in the hospital a month. His birth weight was not stated.

An autopsy was performed on the mother. Evidently, the gross examination was made at the local hospital and the lungs, heart, and liver were sent to the pathologist in a larger town. In the lungs, in the major branches of the left and right pulmonary arteries, a blood coagulum containing stringy and embolic remnants was found. Sections of this showed thread-like remnants of emboli characterized by separation of the leukocytes of the blood with arrangement in string-like clusters bound by fibrin deposits. The pathological diagnoses were as follows: embolism of the branches of the pulmonary artery, probably massive in type; anthracosis of lungs and hilar lymph nodes. The heart and coronary vessels and liver were normal.

This case was reviewed by the Committee on Maternal and Child Care at its regular quarterly meeting and the following evaluations made:

I. Adequacy of Data. The data obtained in this case were rated as 5 on a scale of 1 (minimal) to

Obstetrician-gynecologist member, Committee on Maternal and Child Care.

5 (complete). The data sheet was well filled out, there was an adequate explanatory note, and an autopsy report was present.

II. Cause of Death. As classified in the *Guide for Maternal Death Studies,* this was considered to be an indirect obstetrical death due to vascular disease in the form of pulmonary vascular embolism.

III. Avoidability. It was felt that this death was unavoidable.

IV. Responsibility. No factors of responsibility could be assigned to this case as it was considered an unavoidable death.

DISCUSSION

The committee, in reviewing this case, felt that it was well documented. The data sheet was well filled out and an autopsy report was present. There was a definite cause of death and the death was unavoidable. The committee was also impressed with the quick thinking of the physicians in doing a cesarean section immediately and obtaining a living child. Incidentally, this is the second postmortem cesarean section that the committee has reviewed during the past year.

Postmortem cesarean sections with the successful delivery of a living child seem to be rare. The latest papers report that only about 118 cases could be found in the literature. I am sure that many go unreported. I personally delivered twins, both of which lived, and neglected to report them. In reviewing the literature, an article by Lattuada[1] gives a good summary of the legal aspects of postmortem cesarean sections. Both Lattuada[1] and Weil and Graber[2] feel that the attending physician should immediately do a cesarean section after the death of the mother regardless of whether or not the husband has given permission, as it is important to save a life. As was done in this case, it is important to do the section promptly as the fetus will rarely survive if the mother has been dead for over 20 or 25 minutes. It is best to do the section within the first five minutes of death and the chance of delivering a living baby is better if the mother's death occurs suddenly, rather than if she dies from chronic disease. Cesarean section is preferable to attempting vaginal delivery. The placenta should always be removed and the uterine wall and abdomen sutured.

SUMMARY

A maternal death due to massive pulmonary embolism has been reported. This case was excellently documented. In addition, a living child was obtained by an immediate postmortem cesarean section. ★★★

653 North State Street

REFERENCES

1. Lattuada, H. P.: Postmortem Cesarean Section: Surgical and Legal Aspects, Am. J. Surg. 84:212 (Aug.) 1952.
2. Weil, A. M., and Graber, V. R.: The Management of the Near Term Pregnant Patient Who Dies Undelivered, Am. J. Obst. & Gynec. (April) 73:754, 1957.

THE PINT IS (NOT) MIGHTIER THAN THE SWORD

An Oxford medical student dug up an ancient university regulation which authorized seniors a ration of beer for refreshment while they studied for final exams. He made such a persistent case of his find that the school authorities finally gave in and provided the beer.

But the dons were not outdone: they fined him, after due search of the old edicts, £5 for not wearing a sword.

—*Lancet*

Acute Cholecystitis

W. HOWARD KISNER, M.D.
Natchez, Mississippi

A series of 20 cases of acute cholecystitis is presented. The author discusses symptoms, diagnosis, and treatment in general and in regard to these specific patients. The average age of the group is 52, with the ages ranging from 20 to 77. All the patients were seen on a private surgical service and treated by one surgeon.

THE PURPOSE of this report is to present an analysis of the cases of acute cholecystitis treated on the surgical service of the Natchez Medical Clinic over the past 10 year period.

MATERIAL

The number of cases of acute cholecystitis in this series is 20. This represents 13 per cent of the total number of operations performed on the biliary tract from 1951 to 1961. None of these cases of acute cholecystitis were treated by medical means alone, since it is the author's opinion the treatment of acute cholecystitis is surgical either by cholecystectomy or cholecystostomy.

The average age of this group of cases of acute cholecystitis is 52, the youngest patient being age 20, and the oldest age 77. As in other reported series, the majority of these cases are females. Two of the patients are Negroes and the remainder white. These patients with acute cholecystitis all represent cases seen on a private surgical service and treated by one surgeon. Many of the reported studies on acute cholecystitis are from large charity hospitals or teaching services and represent the work of a group of surgeons, both staff and resident, rather than the work of one individual.

The duration of symptoms varied in this group of cases from a few hours to over two weeks. The predominant symptoms were upper abdominal pain primarily in the right upper quadrant of the abdomen, nausea, and vomiting. Several of these patients had fever from the onset of the illness, but in a majority of the cases there was no fever even in the presence of rather marked inflammatory changes in the gallbladder. The majority of these patients gave a long history of indigestion with intolerance to fatty foods, although it is of interest that one patient, Case No. 1, a 32-year-old Negro male, denied any previous digestive disturbance and gave a history of abrupt onset of epigastric pain. Case No. 2, a 25-year-old white female, gave no history of previous abdominal distress or digestive disturbance. Three of the patients, Case No. 5, a 30-year-old white female, Case No. 9, a 20-year-old white female, and Case No. 13, a 77-year-old white male, exhibited clinical jaundice on admission to the hospital.

Clinically, most of these patients exhibited tenderness with muscle guarding in the right upper quadrant of the abdomen at the time of admission to the hospital, but it is significant that several of these cases had no muscle guarding. The absence of muscle rigidity is not uncommon in the elderly patient with inflammatory disease of an abdominal viscus, but this is also occasionally seen in the younger age group. Case No. 1, a husky Negro male of 32 years of age, had no muscle guarding and complained only of tenderness in the epigastrium. The preoperative diagnosis in this case was not established until celiotomy was performed.

The white blood count, like the temperature chart, is an unreliable diagnostic clue in acute cholecystitis and this is particularly true in the older age group. Case No. 9, a 20-year-old white female, had a 8,700 WBC on admission, indicating that this test is unreliable in the young as well as in the aged.

DIAGNOSIS

The diagnosis of acute cholecystitis is not always clear-cut. This applies to the younger age group as well as the older age group. In the pre-

From the Natchez Medical Clinic.

viously mentioned Case No. 1, the diagnosis of perforated or penetrating ulcer or acute pancreatitis was entertained. In Case No. 2, a 25-year-old white female, the preoperative diagnosis was acute appendicitis.

In several cases of this series a large tender mass could be palpated in the right upper quadrant of the abdomen, and the diagnosis of hydrops of the gallbladder or empyema of the gallbladder was entertained.

A cholecystogram with the use of Telepaque tablets is of value in establishing the diagnosis of acute cholecystitis. Cholecystography is not routinely recommended, but when the patient's general condition permits and when nausea and vomiting are not a complicating factor, this is a valuable procedure. The normal gallbladder concentrates the radiopaque medium and may be visualized on the x-ray film. The finding of a nonfunctioning gallbladder with or without stones is considered significant. In the presence of severe vomiting, intravenous cholecystogram with Cholografin as the medium is recommended. A nonvisualized gallbladder in this instance is also significant and represents blockage of the cystic duct, either by stone or severe edema. Although a visualized gallbladder on intravenous cholecystogram indicates an open cystic duct, the gallbladder may still be acutely inflamed. However, acute cholecystitis is primarily an obstructive disease, and according to Wall and Weiss,[8] 81 per cent of patients with acute gallbladders have cystic duct obstruction after progressive symptoms of four days or over.

Stones, when visualized, are considered to be a significant indication of gallbladder disease. Sixteen of the cases in this series were associated with stones. Ross and Dunphy[9] state that an impacted stone is almost always present in the cystic duct in acute cholecystitis. It is the author's opinion that the time taken to carry out x-ray studies in these cases is time well spent. In doubtful cases in this series no harm was done by the delay, except possibly in Case No. 19. In this case the gangrenous gallbladder ruptured during delivery of the organ. Surgery had been delayed 24 hours following admission to the hospital in order to secure a cholecystogram and to better establish the diagnosis. This particular patient gave a history of having had indigestion for many years with gastrointestinal hemorrhage and a diagnosis of duodenal ulcer some years prior to his present illness.

Jaundice may or may not be present and is usually not due to obstruction of the common bile duct but to associated cholangitis. As mentioned before, three of the patients in this series were icteric on admission to the hospital. In summary, one might state that the diagnosis of cholecystitis should be thought of in any one with a history of upper abdominal pain with or without a past history of indigestion and tolerance to fat. A white blood count is not reliable but when elevated along with elevated temperature indicates an inflammatory process. Tenderness in the right upper quadrant with a history of nausea and vomiting were the most constant findings in this series of cases. Rigidity of the muscles in the right upper quadrant was present in the majority of cases and became conspicuous in two cases following 24 hours' stay in the hospital. If the patient's condition permits, the author feels that a cholecystogram is of great value in helping to establish the diagnosis. Two of the cases in this series of 20 were young women who had only recently been delivered of a baby.

TREATMENT

Formerly there was considerable debate concerning the early surgical treatment of acute cholecystitis versus the delayed treatment. Today most surgeons feel that early surgical treatment is the modality of choice. Cholecystectomy is the treatment of choice although cholecystostomy is of value in the poor risk case. It is the author's opinion that the treatment of acute cholecystitis is entirely surgical and to delay surgery and treat these patients medically is to invite disaster.

A reasonable delay in the good risk patient while diagnostic procedures are carried out is justified. Most of the author's 20 cases were in the hospital 24 hours before surgery was performed. This period of time is valuable to evaluate the fluid balance and the cardiopulmonary status of these patients. Since many of the patients with acute cholecystitis are over 60 years of age, this is a worthwhile delay. In only two of the twenty cases was the gallbladder perforated while a third, as previously mentioned, perforated during delivery of the organ during surgery. Of the perforated cases, Case No. 15 had a duration of symptoms of three days. This patient was operated on the day of admission to the hospital. The second case of perforation, Case No. 20, was operated on 24 hours following admission and five days following onset of the symptoms.

Although there is no absolute safe waiting period in acute cholecystitis one may deduct from these cases that a period of 24 to 48 hours observation from the onset of the disease is relatively safe as regards perforation and beyond that

time perforation may occur from three to seven days or longer from the onset of the disease. Pine and Rabinovitch[7] point out that perforation of the gallbladder usually occurs within three or four days after the onset of the symptoms of acute cholecystitis. Wall and Weiss[8] in their series of cases of acute cholecystitis demonstrate that perforation of the gallbladder occurs after the second day of the disease with the highest incidence in the fifth to the seventh day.

Case No. 10, a 62-year-old white female, and Case No. 12, a 66-year-old white male, are good illustrations of why delayed treatment of acute cholecystitis and medical treatment is unsound. Case No. 10 was admitted to the hospital with the diagnosis of acute cholecystitis and surgery was deferred because of the presence of serious heart disease. On antibiotics the acute process subsided and the patient was discharged. Within a period of six weeks this patient was readmitted to the hospital with a history of severe right upper quadrant abdominal pain of 24 hours duration with tenderness and rigidity in the right upper quadrant of the abdomen. An operation was performed immediately and an acutely inflamed gallbladder removed. The second patient, Case No. 12, refused operation after a diagnosis of acute cholescystitis had been established. He was treated with antibiotics and discharged from the hospital in good condition. A cholecystogram prior to his discharge revealed a nonfunctioning gallbladder. He was readmitted to the hospital within a few days following his discharge with right upper quadrant abdominal pain, tenderness, and rigidity in this area. Operation was performed and a severely inflamed gallbladder containing stones was removed.

In Case No. 13 cholecystostomy was performed. This was the only case of gallbladder drainage in the entire series of 20 cases. This patient was a 77-year-old obese white male in poor general condition. Because of his poor condition and the technical aspects of removing an edematous inflamed gallbladder in an extremely obese man, drainage of the gallbladder was elected. It is the author's opinion that today a cholecystectomy would probably be carried out in this situation as this case occurred quite early in this series of 20 cases. Cholecystostomy is a worthwhile procedure and in face of a critical situation should be carried out. Ross and Dunphy[9] have suggested that cholecystostomy be carried out as a planned procedure in the poor risk patient. These authors recommend the procedure be performed under local anesthesia as a planned operation rather than an escape from a trying situation.

There were no deaths in this series of 20 cases. As previously stated all of these patients were private cases and not ward or charity patients. They therefore represented much better surgical risks than the usual cases seen in a charity hospital.

Exploration of the common bile duct was performed in only one case. Although choledochostomy may be technically difficult in the presence of marked edema the author feels that if the indications for choledochostomy are present, exploration of the common duct should be carried out rather than waiting until a later date and subjecting the patient to a second operation. It is felt that with careful attention to exposure and the usual meticulous care of identifying the common bile duct and the hepatic duct that this procedure does not add greatly to the operative time or to the morbidity of the operation. If the patient's condition is serious enough to make choledochostomy a hazardous procedure, then it is probable that any surgery other than cholecystostomy would be a grave risk.

Eighteen of the cases in this series had an uneventful postoperative course. Case No. 19, a 76-year-old male, whose gallbladder was gangrenous and ruptured during delivery of the organ, had a smooth immediate postoperative course. This patient, in addition to cholecystectomy, had choledochostomy performed. Ten days following his discharge from the hospital he was readmitted with fever, abdominal pain, and a palpable mass in the subhepatic region. The diagnosis was subhepatic abscess and at operation a large amount of old blood was evacuated from the gallbladder bed. No abscess was found. Following this procedure the patient had fever for several weeks. All symptoms subsided under prolonged antibiotic therapy. Case No. 20, a 67-year-old white female, had a perforated gallbladder at the time of surgery. Drainage continued for several weeks postoperatively and blood transfusions were necessary to correct a severe anemia several weeks postoperatively. All symptoms cleared up following antibiotic therapy for several weeks plus administration of two pints of whole blood.

SUMMARY

Twenty cases of acute cholecystitis are presented. The treatment of acute cholecystitis is surgical and should be either cholecystectomy or cholecystostomy depending upon the general condition of the patient. In most cases of acute cholecystitis a reasonable delay for diagnostic work can be made although a waiting period beyond 48 hours presents hazards as regards perforation of the gallbladder. Two of the patients in this series had

perforated gallbladders and a third perforated during operation. If indicated, choledochostomy should be carried out rather than delaying surgery in the poor risk case. Cholecystectomy and, if indicated, choledochostomy may be performed with safety in the good risk case where as cholecystostomy should be reserved for the poor risk patient. The most constant diagnostic features in this series were pain and tenderness in the right upper quadrant with slight elevation of the white blood count.

A nonfunctioning gallbladder found on cholecystography with Telepaque or intravenous Cholografin is thought to be significant. It is the author's feeling that medical treatment in the handling of acute gallbladder disease should be an adjunct of surgical therapy. ★★★

724 North Pearl Street

REFERENCES

1. Glenn, Frank: The Surgical Treatment of Acute Cholecystitis, Surg. Gynec. & Obst. 90:643-648 (June) 1950.
2. Becker, W. F., and Turner, R. J.: A Clinical Study of 1060 Patients with Acute Cholecystitis, Surg. Gynec. & Obst. 104:491-496 (April) 1957.
3. Cavanagh, C. R., and Parkhurst, E. C.: The Management of Acute Cholecystitis, Ann. Surg. 144:188-190 (Aug.) 1956.
4. Eliason, E. L., and Stevens, L. W.: Acute Cholecystitis, Surg. Gynec. & Obst. 78:98-103, 1944.
5. Cowley, L. L., and Harkins, H. N.: Perforation of the Gallbladder, Surg. Gynec. & Obst. 77:661-668, 1943.
6. Gibbons, T. B., and Baker, J. W.: Acute Stoneless Cholecystitis, Arch. Surg. 72:773-779, 1956.
7. Pine, B., and Rabinovitch, J.: Perforation of the Gallbladder in Acute Cholecystitis, Ann. Surg. 140:170-179, 1954.
8. Wall, C. A., and Weiss, R. M.: Early Operation for Acute Cholecystitis, Arch. Surg. 77:433-437, 1958.
9. Ross, F. P., and Dunphy, J. E.: Studies in Acute Cholecystitis, II. Cholecystostomy: Indications and Technic, New England J. Med. 242:359-364 (March) 1950.

THE RISE AND FALL OF CHOLESTEROL

The staid National Heart Institute's director, Dr. Ralph Knutti, has compiled what may be the year's most scientifically significant satire, called "The March of Science, Headline Department," and purporting to trace the rise and fall of cholesterol as a national issue. It goes this way:

Pre-1946: Cholesterol is a good guy
1947: Cholesterol is found to be associated with atherosclerosis
1950: Cholesterol is killing you
1954: Cholesterol is killing you, but it has help
1958: Cholesterol, stress, and lack of exercise are killing you
1962: Cholesterol isn't even helping other things kill you—much
1966: Cholesterol is a good guy

The Insider's Newsletter

Clinicopathological Conference XXVIII

Conducted by the Department of Pathology
University of Mississippi School of Medicine
Jackson, Mississippi

In CPC XXVIII Dr. Curtis P. Artz discusses the management of the burned patient and the complications that may develop. The patient is a 35-year-old colored male who was injured in an accident involving a gasoline truck. He had a severe burn on his legs, circumferential, full thickness burns of the trunk, and a severe burn of the face. Other participants in the conference are Dr. Joel G. Brunson and Dr. Thomas M. Blake.

Dr. Joel G. Brunson: "Today's case, as I am sure you are all aware, is not particularly a diagnostic problem. It is a problem in which there are many facets not only in regard to the initial disease, but also in regard to the problems of therapy and the problems of complication. This type of case lends itself well to a discussion by Dr. Curtis Artz, and he has kindly consented to give us some information relative to the problem of burns in patients and the complications that may develop."

SEPTICEMIA IN BURNS

Dr. Curtis P. Artz: "It is evident from the protocol that this was a patient with an overwhelming burn who died with septicemia caused by *Pseudomonas.* We shall have to find out later whether this was the only cause of death, but I believe it is one of the cases attributed to pseudomonas or gram-negative septicemia.

"To set the stage, let us look at some of the experiences of the past throughout the world regarding septicemia in burns. At the Surgical Research Unit of the Brooke Army Medical Center there were 119 deaths in about 1,100 burn patients from 1950 to 1958. Septicemia caused 68 of the 119 deaths. All of the 68 patients had septicemia as proved by two positive blood cultures and evidence that they died of infection. Incineration and improper replacement therapy, respiratory tract damage, Curling's ulcers, and miscellaneous causes were responsible for the remainder of the deaths.

"When this data was presented at the First International Congress on Research on Burns in September 1961 in Washington, the designation of septicemia as the primary cause of death in burns was challenged by the Massachusetts General Hospital group led by Drs. White and Cope. Their studies indicated that the primary cause of death in burns was respiratory tract damage. I don't think there is any doubt that they were sampling an entirely different population. Most of their burn patients were elderly, while the Brooke group was young. There is no doubt that some type of respiratory tract damage was evident in all of their patients, but many of them died with septicemia. They stated, however, that the primary cause of death was due to respiratory tract damage with pneumonitis, and a progressive downhill course to develop septicemia as the result of contamination from the burn surface.

"We are unable to say at the present time whether the primary cause of death in burns is septicemia or respiratory tract damage, but we must remember that these are the two leading causes of death. At the Birmingham Burns Units in England, septicemia is the number one cause of death, as it is in Czechoslovakia, in Edinburgh, Scotland, and at the University of Texas at Galveston.

RESULTS OF STUDIES

"In general, the patient with a large burn and septicemia dies; the patient with a smaller burn and septicemia has a good chance of survival. In a study of 28 fatalities and 28 survivors with septicemia, the total per cent of burn in the fatality group was 56 per cent; the total per cent in the

survivors was 41 per cent. The onset of septicemia occurred earlier in the survivors, and this is somewhat unexplainable. The fatalities had an onset at about 13 days; the survivors an onset at about six days. The causative organism in the survivors was gram-positive cocci in almost every instance and mostly the hemolytic, coagulase positive staphylococci. Few burn patients with gram-negative septicemia survive. The present state of our knowledge shows that if the burn is extensive, 55 per cent or so, and the patient develops septicemia, whether by hemolytic *Staphylococcus aureus* or by *Pseudomonas,* survival is doubtful. On the other hand, if the burn area is not too large and the organism causing septicemia is gram-positive, treatment with Staphcillin may lead to survival.

"The clinical characteristics of the two types of septicemia vary. The Surgical Research Unit experience points out that many of the cases of gram-negative septicemia are characterized early by a hypothermia rather than a hyperthermia, but this is not true in all patients. Almost all of the patients with gram-positive septicemia have a rising temperature curve.

CASE HISTORY

"The patient under consideration in this CPC was a 35-year-old colored male who was injured in an accident involving a gasoline truck explosion. There was a severe burn on the man's legs, and he also had circumferential, full thickness burns of the trunk and a severe burn of the face.

"Although the patient was burned on Jan. 17, 1961, he was not moved to the University Hospital until Jan. 18. A tracheostomy was performed on admittance. At that time he had a temperature of about 100 and his temperature curve was about 100. His weight was 180 pounds and he appeared well nourished and well oriented.

"Most well-treated patients are well oriented. The patients who are disoriented early are those who have an inadequate replacement of their fluid losses and therefore become hypotensive and anoxic. One of the great problems in the early treatment of burns is that the disoriented patient is treated with morphine. He does not need morphine; he needs fluids or a plasma volume expander. Most of the disoriented, hard to manage, burn patients are in this condition because they have an hypoxia due to inadequate fluid therapy.

"Physical examination of the patient under discussion showed that the neck was supple but edematous. The lungs were clear. The cardiac examination was normal. As far as could be determined on examination, there were no other injuries. He had had some fluid therapy at his local hospital. I had received a telephone call immediately after the accident, and his physician and I agreed on certain fluid management during transport to the University Hospital.

"I think that this brings out a point that is quite important. In going over deaths in our Emergency Department, it appeared some of them occurred because the physician who saw them first did not give adequate resuscitative measures. The responsibility of a consultant on the telephone to the referring physician is to suggest a course of management that will allow the patient to arrive in a salvageable condition.

LABORATORY DATA

"The patient's initial hematocrit was 62 per cent as might be expected. The hematocrit rises rapidly with an expansion of the interstitial space at the expense of the plasma volume. The hematocrit gradually fell to 36 per cent on Jan. 20 and was 32 per cent at the time of his death on the ninth day. He received 500 cc. of blood before he was admitted and 1,000 cc. of blood in his first 48 hours in the University Hospital. I do believe with his falling hematocrit, he probably needed a little more blood. Any well-treated patient after 48 hours should have a hematocrit in the neighborhood of 40 or above.

"Urinalysis on admission revealed a pH of 6.0, albumin 4+, glucose 2+ (because he had received some glucose and water), 15-20 white blood cells per high-power field, and one to two red blood cells. Apparently he had an excellent pair of kidneys before he was burned. It is always difficult to know if the kidneys can be depended on as fluid therapy is prescribed or if the patient has had previous renal damage. This patient's initial blood urea nitrogen was 17 mg. per cent. An initial BUN baseline is important. Undoubtedly, all patients have a rise in their BUN. They put out large quantities of nitrogen in their urine. However, I don't believe that the amount of urine excreted by most burn patients is adequate to take out all the nitrogenous solutes.

"Serum sodium at the time of admission was 151 mEq. per liter. It is not unusual to see a sodium initially of 151 if sodium containing solutions are running into the patient's bloodstream. Potassium was 4.8 mEq. per liter. This is a little above normal but not appreciably. Potassium usually rises a little because of the large amount of destruction of cells and release of potassium into the circulation. Usually after the second day of treatment most of the fluids given to the patient

consist of blood and electrolyte-free water. If additional lactated Ringer's solution is given, it can be somewhat dangerous. A high serum sodium may lead to dangerous hypernatremia. The insensible water loss is quite high in burns and the sodium loss is not nearly as great. Thus, the patient usually has a rising sodium after the first two days.

BLOOD CULTURE REPORTS

"*Pseudomonas* was isolated from the two blood cultures obtained on Jan. 23. I think if you are looking for positive blood cultures in any patient you better take three a day. The only reason we were able to show septicemia as the primary cause of death at the Surgical Research Unit in 1953 was because we started taking three blood cultures every day in seriously ill, burned patients.

"This patient was given Coly-Mycin in amounts of 5 mg. per kilogram every 24 hours. The dosage of Coly-Mycin varies from about 2 to 5 mg. per kilogram per day. On Jan. 26 his blood culture did not show any pseudomonas growth. It did show a coagulase negative *Staphylococcus*. His wound cultures grew out *Pseudomonas* and *Proteus*. Initially, when his temperature began to rise, his antibiotics were changed from penicillin (used routinely on all extensive burns) to chloramphenicol. With an early rise in temperature one thinks of a hemolytic staphylococcal septicemia. As we knew that it was a gram-negative rod causing septicemia in this patient, Coly-Mycin was added, but it seemed to be of little value.

"Initially a cut-down and a tracheostomy were performed because he had a full thickness burn of the face and because we expected that he would have some difficulty with secretions. He was given Elase in the tracheostomy tube to keep the secretions liquid. Elase is as good an enzyme for this particular use as is available at present. The wounds were washed with saline and pHisoHex. I am not sure that pHisoHex is necessary.

"He had occlusive dressings applied because it was believed he would be more comfortable in occlusive dressings. An indwelling urinary catheter was inserted to measure urinary output. Heparin was given. We have some experimental evidence that heparin is of value in deep dermal or deep second degree burns in animals. There is also evidence in our animals that in overwhelming burns the kidneys have a better appearance after the use of heparin than before. On the basis of this and the fact that we have experienced no clinical difficulty in heparinizing patients, many extensively burned patients are heparinized for five days. Whether this will continue to be an approved regimen over the years, I am not sure. Tetanus antitoxin, 4,500 units, and tetanus toxoid were given. It was felt that the toxoid would start his active immunization.

"He had about 9 liters of fluid, 6 liters of lactated Ringer's solution and a liter each of blood, dextran, and dextrose in water in the first 24 hours. Lactated Ringer's solution is a balanced salt solution and is better than saline for burns. Burn patients have a tendency to metabolic acidosis and thus lactated Ringer's solution is better than saline because it contains less chloride.

"His urinary output was quite low (450 cc.), but I believe this is good. It is much more common to overhydrate the extensively burned patient than it is to underinfuse him. Thus 10 to 20 cc. of urine per hour (just enough to give proof that there is adequate perfusion pressure in the kidney) is about ideal. The following day he received 4 to 6 liters of fluids by intravenous injection and maintained an adequate output.

USE OF DIGITALIZATION

"The burn dressings were changed on Jan. 20. Dressings are changed about every five days. At that time he did not appear to be doing too well. He had a very rapid pulse and he was digitalized. I am not sure of the place of digitalization in burn patients. Myocarditis is a common sequel to severe burning. Dr. Harry Fozzard at Barnes Hospital in St. Louis did a great deal of work on myocardial damage in burned animals. He had very convincing evidence that digitalization of burned animals protected their hearts from failure. On the basis of this, several clinicians are now using digitalis therapy in the severely burned patient if there is a continuing rise in pulse rate. Whether this will hold up as a therapeutic agent remains to be seen.

"On Jan. 21 he vomited a large amount of fluid and naso-gastric suction was instituted. We know that all extensively burned patients have a nonspecific paralytic ileus. They develop gastric dilatation. That is the reason that they are not given fluids by mouth in the early course of treatment and that they are watched for gastric dilatation. The cause of death in poorly treated burn patients is frequently aspiration pneumonia following gastric dilatation and the regurgitation of gastric juice into the tracheobronchial tree. This man should have had a tube down earlier. He might well have aspirated some. From then on he apparently went downhill and died in spite of large doses of penicillin, chloramphenicol, and Coly-Mycin given intravenously.

"On Jan. 24 his dressings were changed again. Some coffee ground material was noted in the gastric aspirate. Whether this was bleeding from ulcerated areas in the gastrointestinal tract, I am not sure. Most extensively burned patients do develop some ulceration. Whether they were full-blown, acute Curling's ulcers in this patient I am not sure. His condition generally deteriorated, and he went downhill and died on his ninth post-burn day in spite of large doses of penicillin, chloramphenicol, and Coly-Mycin given intravenously. I imagine he died with an overwhelming burn with an associated pseudomonas septicemia. Now I cannot say that pseudomonas septicemia comes in as a distinct separate entity. This may have been superimposed on a hemolytic staphylococcal septicemia. I have the distinct feeling that pseudomonas septicemia develops in the patient who is practically decompensated from his disease or injury and at the last minute the pseudomonas organisms jump in and serve as final cause of death."

Dr. Brunson: "Dr. Blake, would you care to make a brief comment about digitalis?"

Dr. Thomas M. Blake: "After a discussion about when to use it and what effect digitalis might have in burn patients, it was concluded, I believe, that the clinician's judgment was to use it in the presence of tachycardia. I interpret this to be an evidence of cardiac decompensation in these circumstances, and the indication for digitalis is cardiac decompensation. I would suspect that one would not expect a very obvious response to this situation though."

Dr. Artz: "Digitalis therapy is based entirely on animal work. It is a hard thing to evaluate, as you might imagine."

PATHOLOGIST'S REPORT

Dr. Brunson: "We believe that this patient had two infectious processes. One was systemic and was caused by a gram-negative organism. The other was caused by a gram-positive organism and gave rise, we believe, to some of his terminal phenomena including cardiac failure. The gross findings in this patient were, in addition to the burns, lesions in his heart. There were numerous petechiae and other larger hemorrhages which were located generally along the course of the superficial coronary arteries. Some of these were associated with nodules which were soft and of a creamy yellow color and which obviously contained pus. Some were located right along the coronary arteries; others were present down also in the myocardium. They were present not only in these locations, but also in the endocardium (Figure 1). There was no evidence of bacterial endocarditis, and aside from these multiple abscesses, the heart was not particularly striking, although it was dilated and a little bit larger than

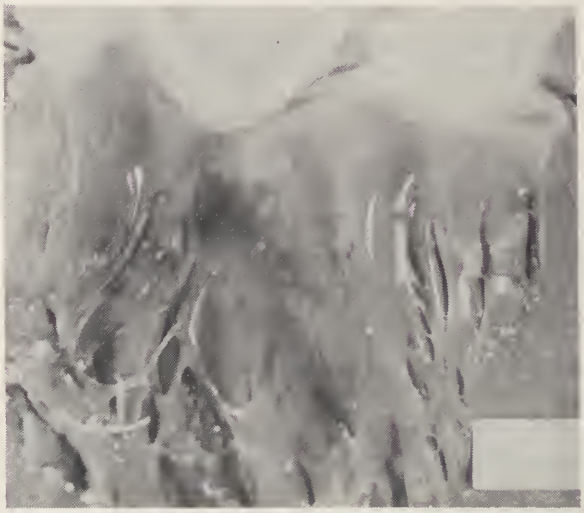


Figure 1. Endocardial surface showing abscesses.

normal. The left ventricular wall was slightly thicker than we usually see, and one can only speculate whether or not this patient may have had a degree of hypertension sometime prior to his terminal illness. Microscopically, there were large areas of necrotic muscle, with circumscribed collections of polymorphonuclear leukocytes and clumps of bacteria, believed to be staphylococci (Figure 2). In addition to abscesses in the myocardium, there were other numerous areas in which the muscle was necrotic. We believe that these areas certainly may have given rise to a degree of cardiac malfunction. Lying within the

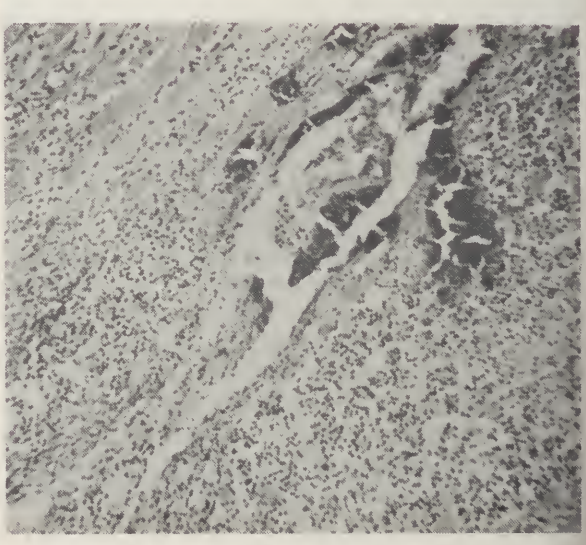


Figure 2. Staphylococcus abscess in myocardium.

Rx THERAPY FOR RETIREMENT

An easy-to-take prescription to insure retirement security . . . a regular savings plan. Savings placed at First Federal of Jackson are protected by high reserves, the highest type insurance of accounts and conservative management policies.

These safeguards, plus high dividends, assure financial security when a regular savings plan is followed. Start now to prepare for retirement years. The chart below, based on 4½% dividend, compounded semi-annually, illustrates how easy it is.

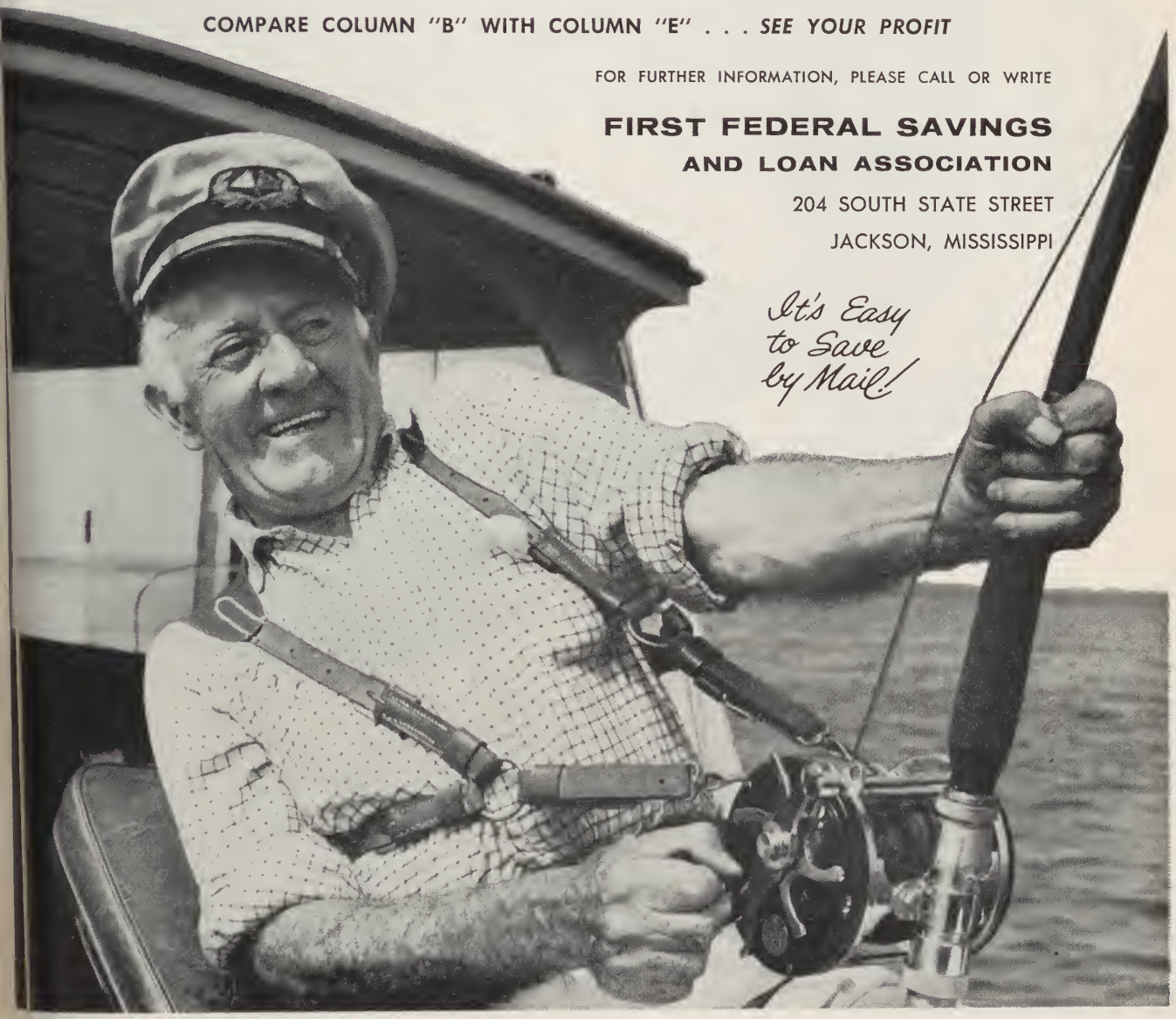
A Amount you save each month for first 20 years	B Actual amount saved by you for 20 years	C Total savings with dividends for 20 years	D You withdraw monthly for next 20 years	E Total withdrawals during second 20 years
$ 30	$ 7,200	$11,632.21	$ 72.38	$17,371.20
50	12,000	19,387.01	120.64	28,953.60
70	16,800	27,141.82	168.90	40,536.00
90	21,600	34,896.62	217.15	52,116.00
100	24,000	38,774.02	241.28	57,907.20

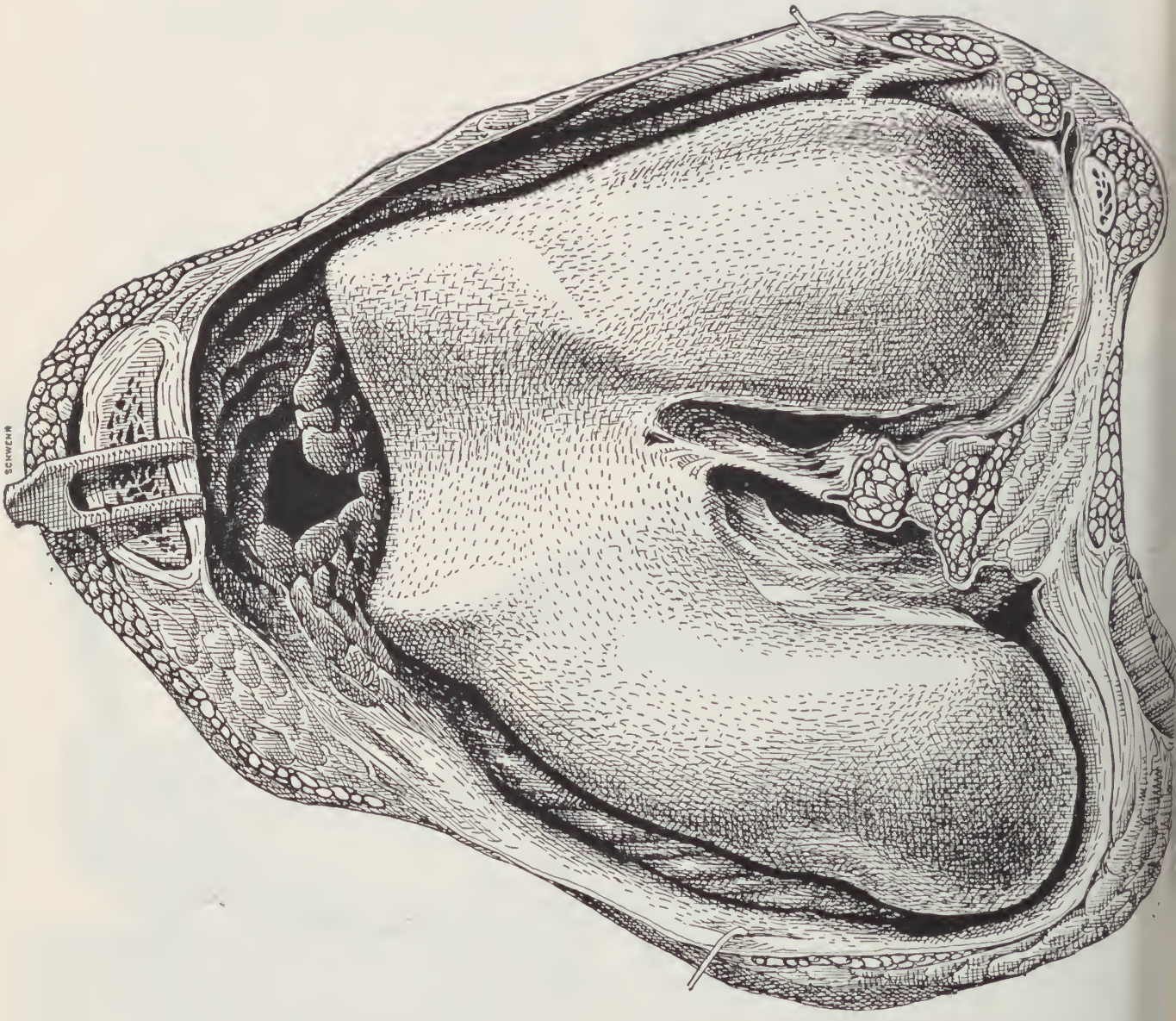
COMPARE COLUMN "B" WITH COLUMN "E" . . . *SEE YOUR PROFIT*

FOR FURTHER INFORMATION, PLEASE CALL OR WRITE

FIRST FEDERAL SAVINGS
AND LOAN ASSOCIATION
204 SOUTH STATE STREET
JACKSON, MISSISSIPPI

It's Easy to Save by Mail!





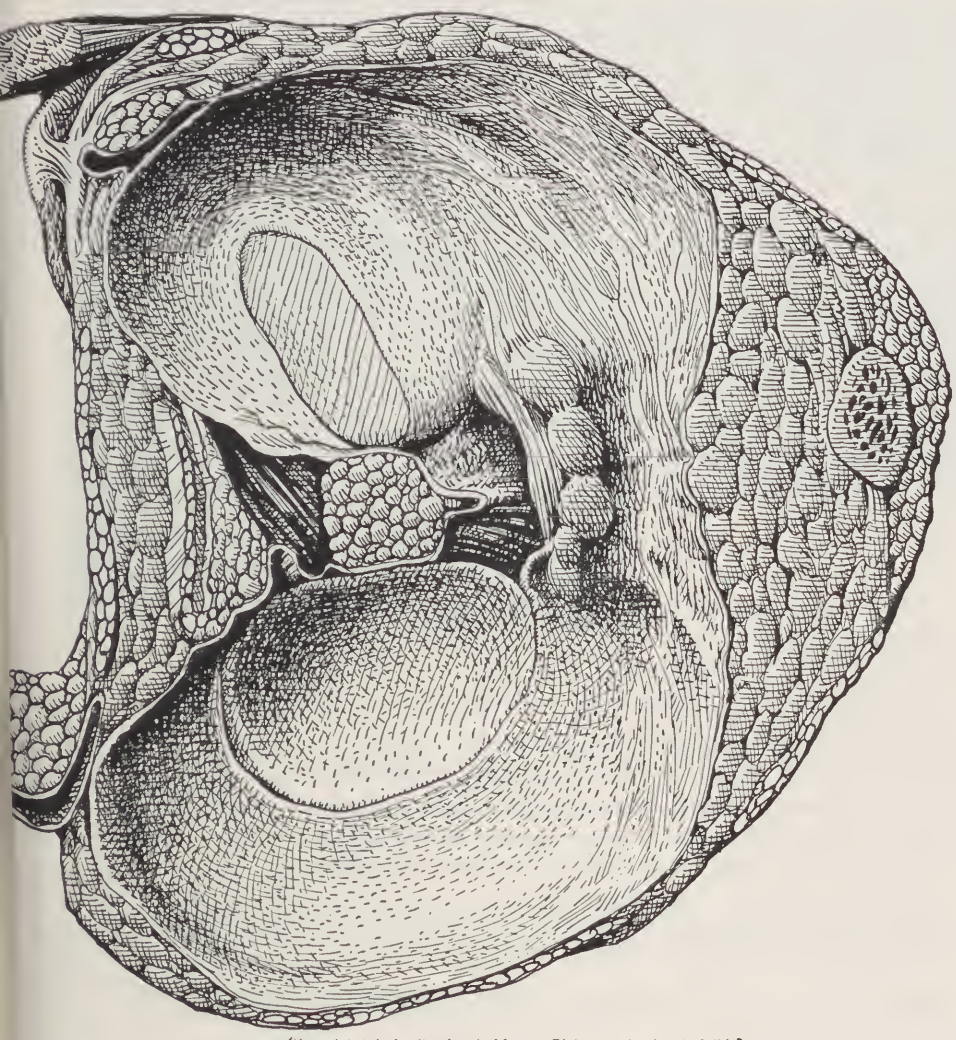
because patients are more than arthritic joints... controlling inflammatory symptoms is frequently not enough

Even cortisone, with its severe hormonal reactions, can effectively control inflammatory and rheumatoid symptoms. But a patient is more than the sum of his parts – and the joint is only part of a whole patient. Symptomatic control is but one aspect of modern corticotherapy, because what is good for the symptom may also be bad for the patient.

Unsurpassed "General Purpose" and "Special Purpose" Corticosteroid...
Outstanding for Short- and Long-term Therapy

Aristocort®

Triamcinolone Lederle



(Knee Joint, Left: distal end of femur; Right: proximal end of tibia)

RISTOCORT is an outstanding "special purpose" steroid when the complicating problem is increased ppetite and weight gain, sodium retention and edema, cardiac disease, hypertension or emotional sturbance and insomnia.

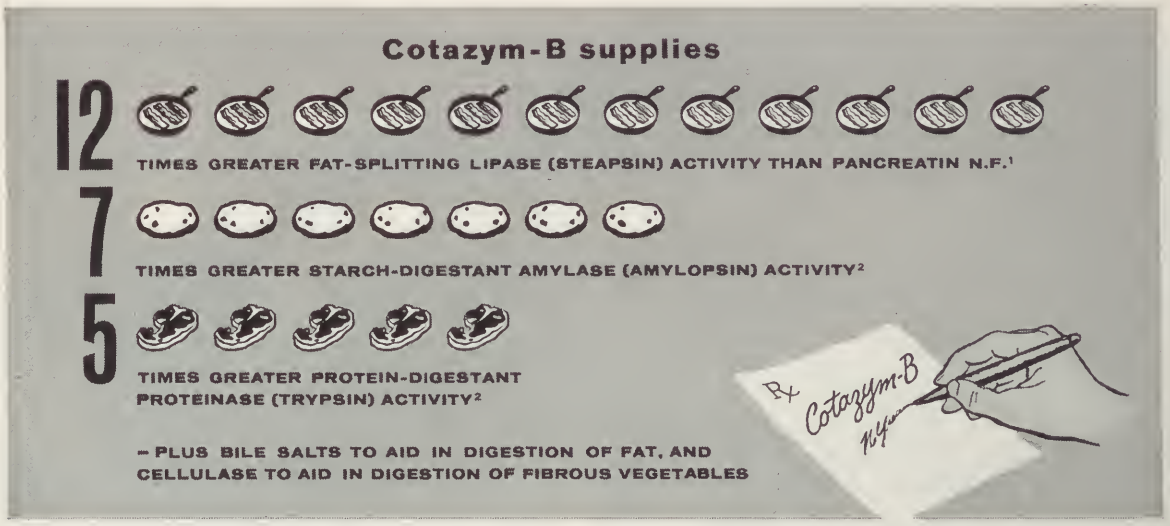
RISTOCORT provides unsurpassed anti-inflammatory control without sodium retention or edema — ithout the undesirable psychic stimulation and voracious appetite.

pplied: Scored tablets (three strengths), syrup, parenteral and various topical forms. Request complete information on indications, sage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

Lederle LEDERLE LABORATORIES · A Division of AMERICAN CYANAMID COMPANY · Pearl River, New York

Digestant needed?

Cotazym-B provides the most potent pancreatic enzyme action available!



COTAZYM-B is a new comprehensive digestant containing bile salts, cellulase and *lipancreatin* for supplementing deficient digestive secretions and helping to restore more normal digestive processes. *Lipancreatin*—"the most potent pancreatic extract available"[3]—is a concentrated pancreatic enzyme preparation developed by Organon.[4] It has been clinically proven to be an effective agent for treating digestive disorders of enzymatic origin.[1,4,5,6,7,8] COTAZYM-B is indicated for the symptomatic relief of dyspeptic or functional digestive disturbances characterized by bloating, belching, flatulence and upper abdominal discomfort.

Dosage: 1 or 2 tablets with water just before each meal.

Organon

REFERENCES: 1. Best, E. B., Hightower, N. C., Jr., Williams, B. H., and Carobasi, R. J.: South. M.J. 53:1091, 1960. 2. Analytical Control Laboratories, Organon Inc. 3. Best, E. B., et al.: Symposium at West Orange, N. J., May 11, 1960. 4. Thompson, K. W., and Price, R. T.: Scientific Exhibit Section, A.M.A., Atlantic City, N. J., June 8-12, 1959. 5. Weinstein, J. J.: Discussion in Keifer, E. D., Am. J. Gastro. 35:353, 1961. 6. Ruffin, J. M., McBee, J. W., and Davis, T. D.: Chicago Medicine, Vol. 64, No. 2, June, 1961. 7. Berkowitz, D., and Silk, R.: Scientific Exhibit Section, A.M.A., New York, June 25-30, 1961. 8. Berkowitz, D., and Glassman, S.: N. Y. St. J. Med. 62:58, 1962.

ORGANON INC., WEST ORANGE, NEW JERSEY

Cotazym®-B

Lipancreatin Bile Salts Cellulase

lumens and walls of arterioles in these areas were micro emboli or clumps of organisms, with some aggregates of platelets. Some of these lay beneath the endothelium, and it looked as though there was a direct continuation outward into the surrounding area with the development of tremendous numbers of abscesses. Why did they localize in the myocardium chiefly? We believe that they may have arisen from the lungs.

"The lungs grossly were heavy. The largest one, the right, weighed over 1,100 gm. and the left one about 900 gm., approximately three times the normal weight. They were not only edematous, but they showed evidence of aspiration of gastric contents. In addition, there were large areas of

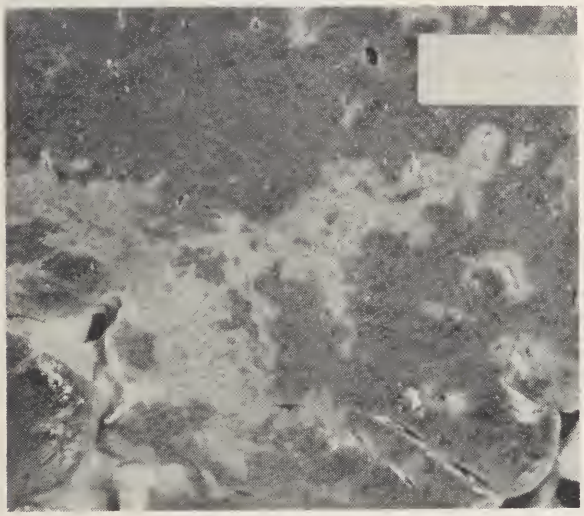


Figure 3. Gross appearance of cut surface of liver showing irregular area of eschemic necrosis.

abscess formation scattered indiscriminately throughout the lung. Many of the pulmonary vessels showed necrotic walls, and their lumens were filled with polymorphonuclear leukocytes, some bacteria, and some aggregates of material which resembled fibrin. Around the area was extensive hemorrhage. Cultures from the lung grew *Staph. aureus,* and it appears that this tendency of the organisms to invade blood vessels may have given rise to micro emboli which drained back to the heart, entered the coronary circulation, and initiated foci of abscesses throughout the heart. We believe that this actually is the major cause of this patient's death although he did have gram-negative infection.

"There were a few scattered areas in the kidneys, particularly the medulla, in which there were clumps of organism with some thromboses and surrounding abscesses, but these were infrequent. Otherwise, as Dr. Artz has said, he appeared to have good kidneys, and histologically the kidneys were well preserved. In the adrenal vessels, there were also scattered occasional emboli of bacteria with surrounding inflammatory reaction. By and large, he did not have pyemia except when one refers to his lungs and to his heart.

"The liver was enlarged about one and a half times the usual size. Over the capsule itself were pale areas indiscriminately scattered throughout both lobes, but primarily in the left lobe of the liver (Figure 3). On cut surface these were seen to radiate in all directions. They had no particular pattern or formation. They resembled liver cords but were opaque yellow-white and suggested areas of ischemic necrosis. This is exactly what it microscopically turned out to be. The vessels themselves were completely free of occlusion. I would think this condition was probably 24 to 48 hours old, and I can only surmise that this may have been related to his gram-negative bacterial infection.

"In summary we believe this patient had gram-negative infection, which would play a role in his death. However, it also appears that he had gram-positive (staphylococcal) infection with staphylococcal and aspiration pneumonia and with dissemination of these organisms to his heart and impairment of the cardiac function. These two factors probably did as much to carry him away as did his gram-negative infection."

CLOSING COMMENTS

Dr. Artz: "This is not an uncommon occurrence and probably what happened is that the patient may have developed his gram-positive septicemia and our blood culture was not able to show it because of antibiotic therapy."

Dr. Brunson: "The postmortem culture grew out *Pseudomonas* and coagulase negative *Staphylococcus*. This was the same thing you got in the blood culture."

Dr. Artz: "But when you got into the heart and lungs, the abscesses were coagulase positive *Staphylococcus."*

Dr. Brunson: "I should mention also that he has superficial erosion in the upper portion with the fundic portion of the stomach going around the esophagus. I suspect that this may have been due to the tube."

Dr. Artz: "Probably it was due to the tube plus the fact that he might have increased acidity."

Dr. Brunson: "He did have; the stomach was very markedly dilated."

Dr. Artz: "The gram-negative organisms caused necrosis of the subcutaneous tissue. Many times you will see a patient that has a granulating surface

on the 11th or 12th day with a pseudomonas septicemia and there will be patches of necrosis present. Then you will see necrosis at autopsy in the liver, and I have seen them in the kidneys.

"I was interested in your observation that there was no cortical necrosis of the kidney. From an investigator's standpoint, I think there are probably three things that will eliminate renal cortical necrosis in many patients whether they are suffering from burns or prolonged shock. The first is mannitol, our best clinical agent today to prevent cortical necrosis in burns or after prolonged shock. Second, a low viscous dextran has been used successfully by Gellin in Sweden to prevent renal cortical necrosis and renal shutdown. Third, heparin appears to prevent the formation of renal cortical necrosis in our animals that were burned. I was glad to see that this patient did not have renal cortical necrosis, particularly after he was heparinized. The clinical aspect of this is if you have a patient in whom you suspect a renal shutdown may occur, the current mode of therapy is to infuse 2.5 per cent mannitol in lactated Ringer's solution."

DIAGNOSIS: Extensive burn with development of gram-negative septicemia and staphylococcal pneumonia. ★★★

2500 North State Street

THE BLOOD BANK CRISIS

The crisis caused by increased uses of blood transfusions and a serious drop-off in donations may soon be resolved by revolutionary new methods of storing and preserving stored blood. Two of the breakthroughs expected soon:

1. Living blood cells have been kept in a state of suspended animation now at sub-zero temperatures for five years, in a research project headed by Dr. James Tullis of the Harvard Medical School and Captain Lewis Haynes of the U. S. Naval Hospital in Chelsea, Mass. This successful experiment means that anyone preparing for an elective operation could build up his own blood bank; anyone with a rare blood type could insure sufficient matching transfusions for an emergency.

2. Clinical research by the surgeon who developed open-heart Surgery, Dr. John H. Gibbon, Jr., has perfected a resin treatment of stored blood that reconstitutes it, removing the accumulated acids and rendering it safe even for large-scale emergency transfusions.



The President Speaking

'Showdown on Socialism'

LAWRENCE W. LONG, M.D.
Jackson, Mississippi

THE KENNEDY ADMINISTRATION is putting the pressure on for a congressional showdown on H.R. 4222, federal compulsory health care for the aged under Social Security. Every trick in the book from political demagoguery up is being used. For the proponents of this legislation, there is no fair or foul in the game.

The present King-Anderson proposal has been in the hopper since early 1961 and administration forces will leave no stone unturned to get action in the closing weeks of the 87th Congress. Former congressman Aime J. Forand is kicking up clouds of dust with his senior citizens' organization. Secretary of HEW Abraham Ribicoff is working tirelessly and the President himself is in the act.

A group of 27 physicians who support socialized medicine were rounded up for a White House meeting a month ago, the idea being to imply a serious division in medicine's ranks on the issue. Democratic Party National Chairman John M. Bailey is on the stump making fantastic charges against physicians and the AMA, a sure sign of administration desperation. Pressures are being applied to the House Committee on Ways and Means where the bill is lodged.

Mississippi congressmen have affirmed their opposition to socialized medicine and the dangers inherent in the King-Anderson bills. They need the support of every physician in the fight. Encourage each congressman to continue his opposition to H.R. 4222 and thank each for the good fight he is waging against socialized medicine.

This isn't old hat or something to ignore: the test may come this month. A victory for labor and the administration will be an irreparable loss for every American who believes in private medicine. ★★★

Radiologic Seminar I: Subpulmonary Pleural Effusion

ROBERT D. SLOAN, M.D.
Jackson, Mississippi

THE ROUTINE, ERECT chest film is the standard base line study for the detection of chest pathology, including pleural fluid. The classical appearance of moderate amounts of pleural fluid, with

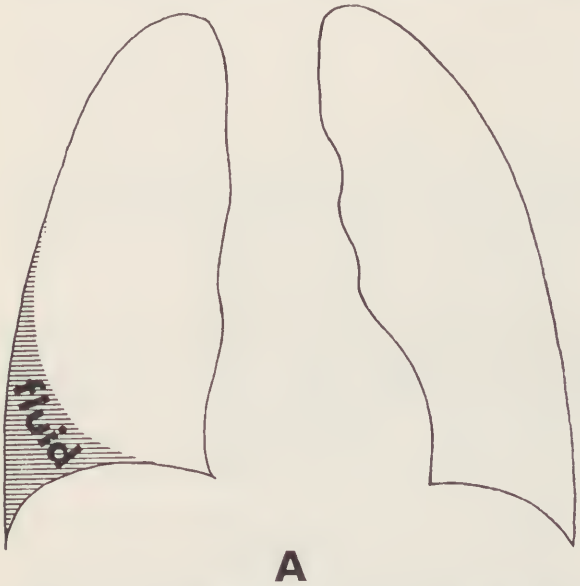


Figure 1A. Schematic illustration of the usual pattern of a moderate amount of pleural fluid as observed on a routine, erect chest film.

obliteration of the costophrenic angle and opacification of varying amounts of the lower hemithorax, is well recognized (Figure 1A). Not so appreciated, however, is the fact that small amounts of pleural fluid (250-500 cc.) may pool in the posterior costophrenic sulcus and be obscured on the routine chest film by the dome of the diaphragm.

Sponsored by the Mississippi Radiological Society.
From the Department of Radiology, University of Mississippi School of Medicine.

Radiologic Seminar I is the first in a series of regular monthly features to be sponsored by the Mississippi Radiological Society. The radiologic aspects of a variety of clinical entities will be discussed, with emphasis upon diagnostic and technical considerations. This month's article concerns the diagnosis of subpulmonary pleural effusion. The Society has appointed Dr. Robert D. Sloan as chairman of the committee to handle the project.

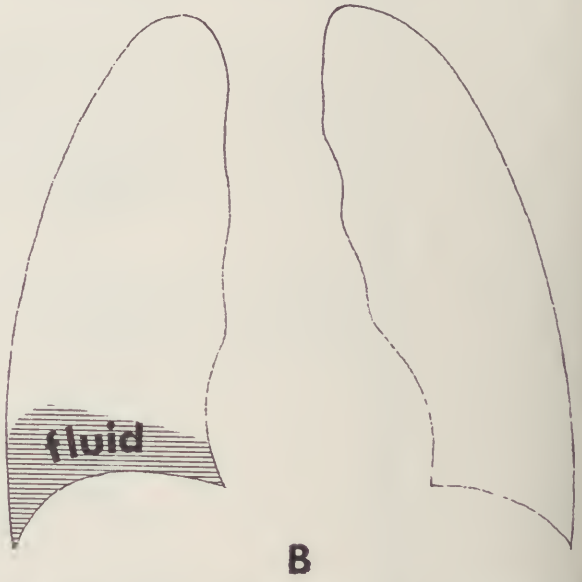


Figure 1B. The pattern observed in so-called subpulmonary effusion. Note how the upper border of the fluid mimics the curve of the diaphragm, and the difference in the angle the fluid makes with the chest wall in this situation.

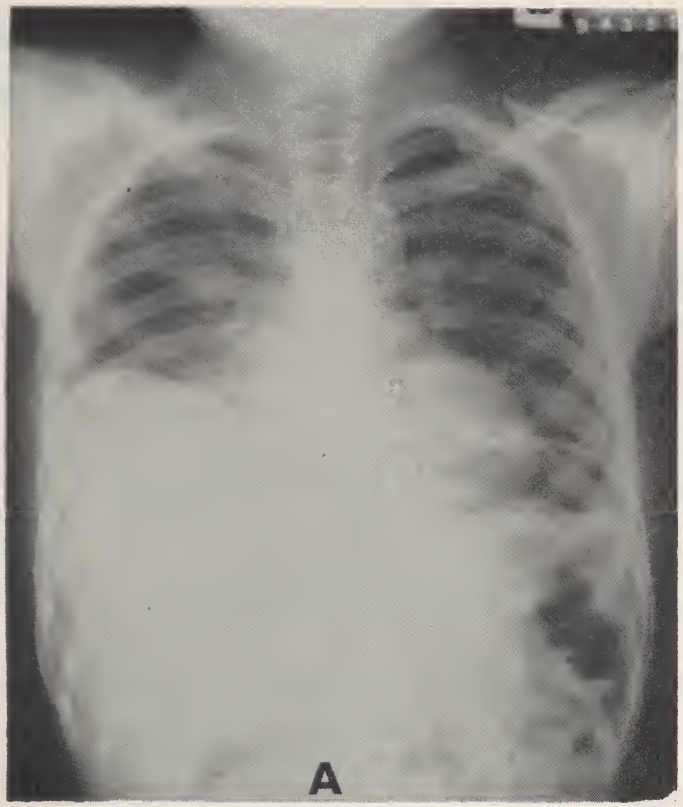


Figure 2A. Reproduction of standard, erect chest film. The presence of any significant amount of pleural fluid would not be suspected, but one would worry about elevation of the right hemidiaphragm.

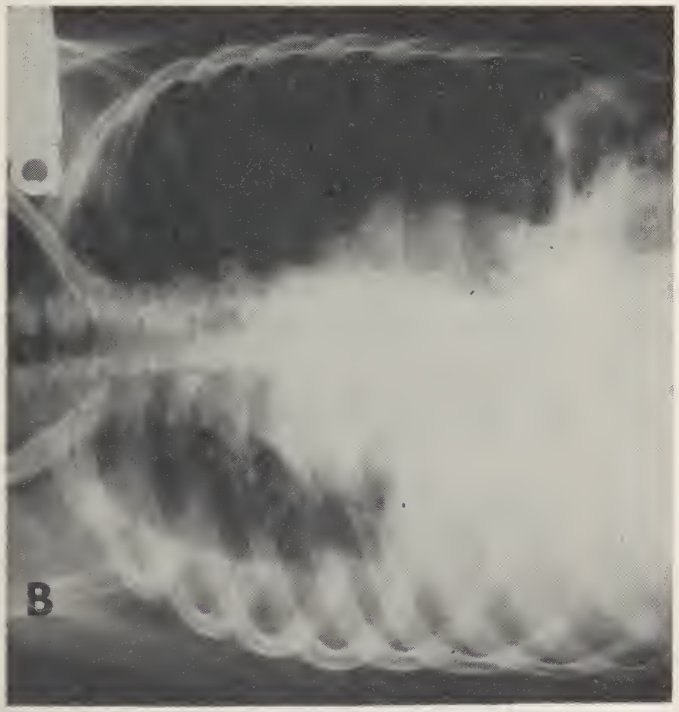


Figure 2B. Reproduction of a film on the same patient, taken in the lateral decubitus position. The presence of a considerable amount of free fluid in the right pleural space is clearly shown.

Another pattern of distribution, more common than is generally realized, occurs when the pleural fluid collects at the base of the chest cavity between the lower edge of the lung and the diaphragm (Figure 1B). This is the so-called subpulmonary or infrapulmonary effusion, although blood and exudates can also assume this position. In this situation the sharp upper border of the fluid may mimic the curve of the diaphragm, so that on routine chest films one may not only not appreciate the presence of pleural fluid, but may actually misinterpret the pattern as representing an elevated hemidiaphragm (Figure 2A). This is especially true on the right, where the liver, diaphragm, and pleural fluid may present a homogeneous density. On the left side the distance between the gastric gas bubble and the lower edge of the lung may offer a clue as to the presence of subpulmonary effusion.

To substantiate a suspicion of subpulmonary effusion, roentgenograms other than in the routine erect projection are necessary. Specifically, recumbent or lateral decubitus views are indicated, the latter being particularly valuable in the detection of small amounts of fluid (Figure 2B). In this projection the patient lies with the affected side down, and the x-ray beam is directed in a horizontal manner through the chest. The fluid then tends to gravitate along the dependent lateral border of the pleural space, where it is easily differentiated from the adjacent aerated lung and the rib cage. ★★★

2500 North State Street

REFERENCES

1. Harris, E. J.; Henderson, R. P.; and Packer, J. M.: Subpulmonary Pleural Effusions, South. M. J. 52:1363-1367, 1959.
2. Hessen, I.: Roentgen Examination of Pleural Fluid, Acta Radiol. Suppl. 86, 1951.
3. Peterson, J. A.: Recognition of Infrapulmonary Pleural Effusion, Radiology 74:34-41, 1960.
4. Wilson, J. W.: Diagnosis of Infrapulmonary Pleural Effusion, J.A.M.A. 158:1423-1427, 1955.

BOARD OF TRUSTEES

H. H. McClanahan, Jr., Columbus, Chairman
John B. Howell, Jr., Canton, Vice Chairman
C. D. Taylor, Jr., Pass Christian, Secretary
John G. Archer, Greenville
Joseph B. Rogers, Oxford
S. Lamar Bailey, Kosciusko
Lamar Arrington, Meridian
C. P. Crenshaw, Jr., Collins
Everett H. Crawford, Tylertown

COUNCIL ON BUDGET AND FINANCE

W. K. Purks, Vicksburg, Chairman (1963)
Charles L. Neill, Jackson (1962)
Omar Simmons, Newton (1964)

EDITORIAL COUNCIL

W. Moncure Dabney, Crystal Springs, Editor (1963)
George H. Martin, Vicksburg, Associate Editor (1962)
Dewitt W. Hamrick, Corinth, Associate Editor (1963)

COUNCIL ON MEDICAL EDUCATION

Temple Ainsworth, Jackson, Chairman (1963)
E. LeRoy Wilkins, Clarksdale (1961)
L. T. Carl, Jackson (1962)

COUNCIL ON CONSTITUTION AND BY-LAWS

E. LeRoy Wilkins, Clarksdale, Chairman (1963)
Frank C. Massengill, Brookhaven (1962)
John B. Howell, Jr., Canton (1961)

COUNCIL ON LEGISLATION

W. E. Lotterhos, Jackson, Chairman (1963)
A. Street, Vicksburg (1962)
Lamar Arrington, Meridian (1964)
Fred M. Sandifer, Greenwood (1962)
R. E. Shands, New Albany (1962)
Frank M. Davis, Corinth (1962)
Paul B. Brumby, Lexington (1964)
Van C. Temple, Hattiesburg (1963)
A. V. Beacham, Magnolia (1963)
James T. Thompson, Moss Point (1963)

JUDICIAL COUNCIL

E. LeRoy Wilkins, Clarksdale, Chairman (1962)
Eugene M. Murphey, III, Tupelo (1962)
N. C. House, Batesville (1962)
Samuel B. Caruthers, Grenada (1963)
George H. Martin, Vicksburg (1963)
Omar Simmons, Newton (1963)
A. T. Tatum, Petal (1964)
G. Swink Hicks, Natchez (1964)
W. J. Weatherford, Pascagoula (1964)

COUNCIL ON MEDICAL SERVICE

Guy T. Vise, Meridian, Chairman (1962)
M. Q. Ewing, Amory, Vice Chairman (1963)
S. Lamar Bailey, Kosciusko, Secretary (1962)
Frank M. Acree, Greenville (1963)
Joseph B. Rogers, Oxford (1963)
Lynn D. Abernethy, Jackson (1962)
T. E. Ross, Hattiesburg (1964)
E. H. Crawford, Tylertown (1964)
Fred C. Minkler, Pascagoula (1964)

COUNCIL ON SCIENTIFIC ASSEMBLY

C. G. Sutherland, Jackson, Chairman (1964)
William T. Wilkins, Clarksdale, EENT
John B. Howell, Jr., Canton, GP
Raymond F. Grenfell, Jackson, Medicine
Michael Newton, Jackson, Ob-Gyn
Frank M. Wiygul, Jackson, Pediatrics
Percy T. Howell, Decatur, Preventive Medicine
James T. Thompson, Moss Point, Surgery

COUNCIL ON SOCIOECONOMIC AFFAIRS

Lyne S. Gamble, Greenville, Chairman (1962)
Joseph L. Guyton, Pontotoc (1962)
J. T. Davis, Corinth (1962)
Mal S. Riddell, Winona (1963)
Carl D. Brannan, Jackson (1963)
C. B. Mitchell, Jr., Meridian (1963)
S. B. McIlwain, Pascagoula (1964)
Frank L. Ramsay, Laurel (1964)
Oscar G. Eubanks, Crystal Springs (1964)

JOURNAL OF THE
MISSISSIPPI STATE
MEDICAL ASSOCIATION

Volume III, Number 5

May 1962

EDITORIALS

Faith Healers: A Major Denomination Takes A Stand

I

FAITH HEALERS are among the most reprehensible health quacks flourishing today. Attraction of the gullible by these charlatans is a matter of curious wonder in this enlightened age but flourish they have and flourish they will, in all probability, until the end of time.

This expression is neither advocacy of atheism nor is it intended to question valid religious teachings of divine intervention in sickness. Obviously, the latter is in a context totally apart from the individual who, for a fee, claims healing powers through divine sources. At least one major faith feels that such endeavors are more secular than ecclesiastical.

The United Lutheran Church of America has released an official pronouncement warning its two and a half million members to stay away from faith healers because "they are religious quacks and care more for money and power than for people." The church policy resulted from a two-year study by a committee of Lutheran physicians, ministers, and theological professors. It will be formally presented to the church convention which meets June 25-27, 1962, at Detroit.

II

The position of the Lutheran church leaves little to be questioned: "Faith healers," the committee states, "are often less concerned with the spiritual and physical well-being of people than with the demonstration of their personal power or the attainment of prestige and financial gain. This is religious quackery."

The statement defines faith healers as those who, claiming to possess or convey spiritual powers that heal the sick, distort the gospel by trying to direct the power of Christ into a miraculous act of bodily healing. Eight specific charges against these pretenders are made by the church:

—They fail to recognize, as God's gift to man, scientific methods and recognized therapeutic procedures.

—They mislead the credulous by offering physical cures which cannot honestly be promised by anyone.

—They endanger the whole of spiritual life by claiming that God is able and ready to heal, leaving the implication that failure to be cured is due to lack of faith on the part of the afflicted.

—They use mass meetings and mass communications to reach an unknown public and use faulty evidence and false hope to lead people to expect more than God has ordained for them.

—They make a spectacle of human misery and exploit the hopes and fears, the frustrations and disappointments of the desperate, the disturbed, and the credulous.

—They oversimplify faith and healing and distort the image of those dedicated to serving the spiritual and physical well-being of people.

—They endanger human lives by misdirecting believers into a sense of false security, thereby delaying early diagnosis and treatment and in many instances directly contribute to an untimely death.

—They use the power of suggestion and mass hypnosis to create an individual sense of well-being, confusing this with the work of the Holy Spirit.

III

This enlightened—and genuinely reverent—view is to be applauded. The committee, in making its report, was careful to point out that it did not reject miracles of healing. The group was properly concerned with the patently mundane matter of phonies who profane rather than heal. Nor does the report suggest any denial of practices by other religious bodies with respect to health and healing.

Finally, the committee frankly concedes that its pronouncement is not intended to supply ready made answers or canon law to relieve individuals and Lutheran congregations from making their own decisions on matters of healing.

This significant pronouncement is further compelling evidence that there is no conflict between science and religion, which is to say that it is a corollary denunciation of atheism's dialectic materialism.

In assuming this position, the Lutheran church has performed a distinct service to man, profoundly validating its spiritual mission.—R.B.K.

'Ist Nich Chiropractor; Ist Heilpraktiker!'

German physicians are a mite indignant over an obscure but recent book, *Medicine and Chiropractic,* allegedly published in Germany, by C. W. Weiant in collaboration with S. Goldschmidt. A central theme of the work is that German physicians accept chiropractic. The potential stature of the opus is somewhat diminished when one consults the catalogue of the Chiropractic Institute of New York. It says its dean is one Clarence W. Weiant and that Sol Goldschmidt is on its Board of Trustees.

The Department of Investigation of the American Medical Association was moved to inquire about the book's assertions to German medical authorities. Says Dr. Röken of the Bundesärztekammer at Stuttgart:

"The so-called chiropractor is just an American importation! The German medical doctors state unequivocally in their code of ethics that cooperation with nonmedical doctors is illicit."

Now the Germans do have a kind of cultist, Dr. Röken continues. He's a sort of manipulating naturopath, called a *heilpraktiker,* and the German M.D.'s have nothing to do with him, either. So don't bite for the growth of chiropractic in Germany. If a practitioner there punches spines:

"Ist nich chiropractor; ist ein heilpraktiker!"—R.B.K.

The Washington Lobbies: Who Spends What?

Attacking medical legislative activities has become a favorite indoor sport for liberals, labor leaders, and many administration spokesmen. A climax of abuse is usually reached with the allegation that ". . . the American Medical Association is the spendingest and most powerful lobby in



Copyright 1962, Mississippi State Medical Association

"Yes, I'm QUITE *sure it isn't fallout."*

Washington." The naive listener might get the impression that AMA capitol hill representatives are latter day mutations of Mark Hanna, complete with silk tophat and cigar, and a shadowy operator of the evening stealing along beneath a red-lined Inverness cape.

Not infrequently, lobbying expenditures by medical organization are the subject of discussion by labor leaders. So just what are the facts?

In 1961, labor unions reported spending more than $1 million on lobbying with AFL-CIO unions taking an easy first place with a total of about $707,000. In contrast, AMA spent $163,000. Nothing in this commentary is intended to question the right, duty, and responsibility of organizations to lobby in behalf of their memberships for what they believe. It is a question of getting the record straight on who spends what on capitol hill in Washington.

Exactly 32 labor organizations filed statements of lobbying expense totaling $1,024,049.38 with the Clerk of the House of Representatives. Of these 32 labor organizations, 17 are AFL-CIO affiliates, not including the parent body itself. Still another 17 labor organizations did not register during 1961 but had employees who registered as lobbyists. None of these expenditures include the giant UAW, mineworkers, and steelworkers.

And another thing: AMA's lobbying bill amounts to about 1 per cent of its annual budget, the bulk of which goes—as every doctor knows—for scientific activity. Somehow, we get the impression that labor organizations might not be able to make a similar assertion.—R.B.K.

PERSONALS

Curtis P. Artz and James D. Hardy of the University of Mississippi School of Medicine participated in the sectional meeting of the American College of Surgeons, March 26-28 in Memphis. Dr. Hardy appeared on a panel on the management of surgical patients on steroids, anticoagulants, and antibiotics. Dr. Artz moderated a panel discussion on multiple injuries.

N. A. Bologna of Greenville was named president of the Washington County Touchdown Club at the group's organizational meeting. Dr. Thomas Barnes is a director of the club.

Homer Ellis was re-elected president of the Natchez Chamber of Commerce at a recent meeting.

Lewis W. George, who has practiced in the Iuka area for the past five years, has begun a residency in anesthesiology at the University of Mississippi School of Medicine. Dr. George was associated with Dr. Bobby King and Dr. Kelly Segars in the operation of the Iuka Clinic.

J. A. Graves was recently elected to his fifth consecutive term as president of the Biloxi school board.

Carl G. Nichols, who has practiced in Leland since 1954, has begun a residency in surgery at the Kuhn Memorial Hospital in Vicksburg.

Charles Pruitt of Magee has been awarded a 10-year attendance certificate by the New Orleans Graduate Medical Assembly.

H. Lowry Rush was one of 19 Mississippians named to Emory University's "Committee of 100" advisory group to officers.

Herbert S. Street has announced his association with Ernest J. McCraw and Thomas J. Anderson in the McCraw Clinic in Laurel.

James Waddell has been elected president of the Ocean Springs School board. Dr. Waddell has served four years as a member of the board.

NEW MEMBERS

The following physicians have been elected to membership by their respective component medical societies in the Mississippi State Medical Association and the American Medical Association:

Dugger, Andral Forrest, Jr., Waynesboro. Born Jackson, Miss., Dec. 1, 1929; M.D., University of Mississippi School of Medicine, Jackson, 1960; interned U. S. Naval Hospital, Portsmouth, Va.; member of the American Medical Association; U. S. Navy, four years; elected March 8, 1962, by South Mississippi Medical Society.

Howell, Geogre Leroy, Starkville. Born Starkville, Miss., Sept. 7, 1933; M.D., University of Tennessee College of Medicine, Memphis, 1957; interned Mobile General Hospital, Ala.; member of the American Medical Association and the American Academy of General Practice; elected

NEW MEMBERS / Continued

March 13, 1962, by Northeast Mississippi Medical Society.

LEWIS, RAYMOND, Meridian. Born in Webster County, Miss., Aug. 10, 1931; M.D., University of Mississippi School of Medicine, Jackson, 1957; interned Southern Baptist Hospital, New Orleans, La.; elected Feb. 6, 1962, by East Mississippi Medical Society.

MAYFIELD, ROBERT VON ELM, Richton. Born Laurel, Miss., Dec. 10, 1926; M.D., Bowman Gray School of Medicine of Wake Forest College, Winston-Salem, N. C., 1952; interned City Memorial Hospital, Winston-Salem, N. C.; U. S. Army, two years; elected March 8, 1962, by South Mississippi Medical Society.

MCMILLAN, MABRY STANTON, Water Valley. Born Water Valley, Miss., Sept. 2, 1922; M.D., Harvard Medical School, Boston, Mass., 1953; interned Lankenau Hospital, Philadelphia, Penn.; member of the American Medical Association; U. S. Air Force, four years; elected Jan. 24, 1962, by North Mississippi Medical Society.

MURREY, WILLIAM HARWELL, Walnut. Born Murfreesboro, Tenn., Nov. 28, 1934; M.D., University of Tennessee College of Medicine, Memphis, 1960; interned John Gaston Hospital, Memphis, Tenn.; elected Jan. 24, 1962, by North Mississippi Medical Society.

STOWERS, KURTZ BISHOP, Natchez. Born Natchez, Miss., Aug. 10, 1930; M.D., Johns Hopkins University School of Medicine, Baltimore, Md., 1956; interned Grady Memorial Hospital, Atlanta, Ga.; elected Jan. 28, 1962, by Homochitto Valley Medical Society.

TUTOR, FORREST TRAVIS, Jackson. Born Randolph, Miss., July 13, 1927; M.D., Cornell University Medical College, New York, 1955; interned Duke Hospital, Durham, N. C.; elected March 6, 1962, by Central Medical Society.

DEATHS

HARRISON, CHARLES HENRY, SR., Philadelphia. M.D., Emory University School of Medicine, Ga., 1917; member of the American Medical Association; emeritus member of MSMA; past president of the East Mississippi Medical Society; died March 19, 1962, aged 72.

HICKMAN, WALTER BERNARD, Louisville. M.D., Tulane University School of Medicine, New Orleans, La., 1930; interned Highland Hospital, Shreveport, La.; member of the American Medical Association; past president of the East Mississippi Medical Society; member of the American Academy of General Practice; died Feb. 27, 1962, aged 58.

SABATINI, SILVIO AMEDEO, Jackson. M.D., State University of New York Downstate Medical Center, 1932; Fellow of the American College of Surgeons; member of the American Urological Association, Association of Military Surgeons of the United States, and the American Medical Association; associate member of MSMA; died Feb. 28, 1962, aged 54.

SYNNOTT, JAMES PATRICK, Winona. M.D., Memphis Hospital Medical College, Tenn., 1894; member of the American Medical Association; emeritus member of the MSMA and member of the Fifty Year Club; died March 18, 1962, aged 93.

WEAVER, NATHANIEL RUSH, Yale. M.D., Memphis Hospital Medical College, Tenn.; died Feb. 23, 1962, aged 82.

YOUNG, WILLIAM ALLAN, Louisville. M.D., University of Nashville Medical Department, Tenn., 1906; died Feb. 27, 1962, aged 79.

THYROID FUNCTION / Continued

An Appraisal of the Radioiodine Tracer Technic as a Clinical Procedure in the Diagnosis of Thyroid Disorders, J. Clin. Endocrinol. 10:1054-1076 (Sept.) 1954.

31. Jaffe, H. L., and Ottoman, R. E.: Evaluation of Radioiodine Test for Thyroid Function, J.A.M.A. 143:515-519 (June 10) 1950.
32. Rall, J. E.: Symposium on Pathologic Physiology of Thyroid Diseases: Role of Radioactive Iodine in Diagnosis of Thyroid Diseases, Am. J. Med. 20:719-731 (May) 1956.
33. Oddie, T. H.; Rundle, F. F.; Thomas, I. D.; Hales, I. B.; and Catt, B.: Quantitative Observations with the Thyroxine Suppression Test of Thyroid Function, J. Clin. Endocrinol. 20:1146-57 (Aug.) 1960.
34. Hales, I. B.; Myhill, J.; Oddie, T. H.; and Croydon, M.: Quantitative Observations with the Triiodothyronine Suppression Test of Thyroid Function, J. Clin. Endocrinol. 21:189-195 (Feb.) 1961.
35. Hamolsky, M. W.; Golodetz, A.; and Freedberg, A. S.: The Plasma Protein-Thyroid Hormone Complex in Man, J. Clin. Endocrinol. 19:103-116 (Jan.) 1959.
36. Levin, M. E.: "Metabolic Insufficiency," A Double-blind Study Using Triiodothyronine, Thyroxine, and a Placebo: Psychometric Evaluation of the Hypometabolic Patient, J. Clin. Endocrinol. 20:106-115 (Jan.) 1960.
37. Johnson, M. W.; Squires, A. H.; and Farquharson, R. F.: Effect of Prolonged Administration of Thyroid, Ann. Int. Med. 35:1008-1022 (Nov.) 1951.

Bibliotherapy Useful Adjunct To Modern Psychotherapy

Editor's Note: The fifth National Library Week was observed this year on April 8-14. Dr. Floy Jack Moore, chairman of the Department of Psychiatry, University of Mississippi School of Medicine, and William E. Breland, administrative assistant to the Department of Psychiatry, prepared the following article for the Journal *as a contribution to the observance. Dr. Moore is a member of the Citizens' Committee for National Library Week.*

The word "bibliotherapy" is a relatively new term used to describe an old idea. It comes from the Greek words "biblion," meaning book, and "oepatteid," meaning healing or treatment. In its most exact sense the word is defined as the treatment of a patient by means of selective reading. The use of books as treatment devices dates back to man's early history. For example, in some ruins of ancient Thebes an inscription was found over the entrance to a library which, translated, means "healing place of the soul." Bibliotherapy is an interesting and challenging activity for the librarian, since it brings to life the printed word, and its impact upon an individual personality may have a healing effect. Just as in the general field of physical medicine, the use of treatments range from the self-administered aspirin to the physician-prescribed drug, so also in the field of psychological medicine, books or treatment agents range from the self-selected readings of novels and magazines to the carefully, professionally selected books and articles. Reading can be an important diversion for an emotionally disturbed person. For example, an individual suffering from frustrations and unexpressed hostilities loses himself in a mystery story, forgets his real problems for the time, and unconsciously identifies himself with some character in the story through whom he releases his pent-up feelings and gains certain pleasures and satisfactions.

Books, through bibliotherapy, can and are being used in psychotherapy. In this they are carefully evaluated, selected, and prescribed to a patient as determined by his individual needs. These needs vary from patient to patient and are determined by a variety of factors such as age, sex, education, kind and severity of illness, intelligence, and personality.

The aims of bibliotherapy are varied. In addition to reading for diversion and entertainment, books may be prescribed to increase the patient's fund of information, to develop interests outside himself or to help him understand his specific problem. Thus, a book on stuttering might be prescribed for someone who stutters, a book on marriage for those who are having difficulty in their marital life.

There is a great deal of proven evidence to support the use of bibliotherapy in the treatment of emotionally disturbed individuals. Professionally prescribed reading can help to change faulty attitudes, influence patients whose motivation for treatment is poor, and provide advice on the treatment of specific problems in marriage, child rearing and other adjustments.

All of this can only be done with good libraries and good librarians. Books are of paramount importance in developing the minds of our citizens, our most important natural resources.

REFERENCES

1. Tews, R. M.: Organizing and Maintaining Hospital Library Patient Service, Hospital Progress 40:70-80 (Dec.) 1959.
2. Bass, A. H.: Great Books Are Good Treatment, Mental Hospital 11:43-4 (May) 1960.
3. Kauppi, H.: Bibliotherapy and Library Work in Hospitals, Suom Loak 14:1445-52 (Nov. 20) 1959 (Finnish).
4. Blackshear, O. T.: Public Libraries Serving the Aging, J. Geriatrics 15:390 (May 7) 1960.
5. Wolberg, L. R.: The Technique of Psychotherapy, New York, Grune and Stratton, 1954.

Book Reviews

Thoracic Diseases. By Eli H. Rubin, professor of medicine, Albert Einstein College of Medicine, and Morris Rubin, professor of thoracic surgery, Albert Einstein College of Medicine. 968 pages with illustrations. W. B. Saunders Company, 1961. $25.00.

This is a comprehensive work that covers the entire field of pulmonary diseases, from developmental abnormalities to those frequently obscure

conditions in which the pulmonary manifestations may or may not be the most prominent feature.

From the section on infectious diseases, and typical of the entire book, is the thorough treatment of tuberculosis. Five chapters cover the many aspects of this disease giving the reader a good view of the current status and treatment of this still unconquered great plague.

Ample space is devoted to thoracic problems of increasing importance, such as neoplasm and emphysema, to make this a very helpful book to all practicing physicians.

The outstanding feature of this book that sets it apart from and above many similar efforts is the emphasis on cardiopulmonary relationships that have long puzzled the specialists, as well as the general practitioner. While it is still often difficult to assess the relative importance of the two systems in a given instance, the discussion of pulmonary physiology and recently developed techniques, such as cardiac catheterization and angiography, will help to clarify these interrelated causes and effects.

Excellent illustrations, especially reproductions of chest x-rays and a full well-edited bibliography, add greatly to the usefulness of this book which is a result of the authors' wide clinical experience, constant study of the work of others and remarkable ability to integrate the whole. It is highly recommended.

CLYDE A. WATKINS, M.D.

State Morbidity Reported Through March 30

The Mississippi State Board of Health reports the following occurrence of morbidity for 1962 through the 13th week of the year, ending March 30, 1962. Case totals reported are shown opposite the disease condition.

Tuberculosis, pul.	164
Tuberculosis, O.F.	13
Dysentery	
Amebic	3
Bacillary	9
Food Poisoning, NOS	2
Septicemia, Strep.	3
Septicemia, Staph.	10
Staphylococcus Infection	7
Diphtheria	1
Meningococcus infection	
Meningitis	5
Meningococcemia	1
Meningitis, O. F.	15
Other complications of smallpox vaccination	1
Tularemia	2
Tetanus	5
Encephalitis, infectious	6
Mononucleosis, infectious	17
Diarrhea of newborn	2
Hepatitis, infectious	324
Helminthic infections	
Hookworm	120
Ascariasis	76
Streptococcus infection	
Scarlet fever	113
Strep throat	1,288
Rheumatic fever	2
Pertussis	6
Measles	1,676
Chickenpox	500
Mumps	141
Influenza	11,094
Gonorrhea	1,279
Syphilis	
Early	30
Late	85



Copyright 1962, Mississippi State Medical Association

"I don't understand it, Doctor; lately I've been dragging around like a tired old woman."

Legislature Endorses 'Good Samaritan' Law; Mississippi Is Ninth To Remove Liability Threat

Mississippi became the ninth state to correct a potential liability threat by enactment of a "Good Samaritan" law. The medical association-sponsored proposal, House Bill 132, was passed by the Senate on April 2 and returned to the House of Representatives for concurrence. Governor Barnett signed the measure soon afterward.

As finally enacted, the new statute states that " . . . no licensed physician or registered nurse who, in good faith and in the exercise of reasonable care, renders emergency care to any injured person at the scene of an emergency, or in transporting said injured person to a point where medical assistance can be reasonably expected, shall be liable for any civil damages as a result of any acts or omissions by such persons in rendering the emergency care to said injured person."



Governor Ross R. Barnett signs the MSMA-sponsored Good Samaritan Law as Dr. Lawrence W. Long, Association president, looks on.

Reps. Sutton Marks (Hinds) and Thompson McClellan (Clay) introduced the measure in the House where Sen. W. M. Jones, Brookhaven, introduced the Senate version. The bill passed the House by a vote of 83 to 31 and was enacted by the Senate without opposition. Both houses added amendments.

The measure was delayed during consideration by the Senate Committee on Finance, association spokesmen said. In addition to the House amendment, a clause specifying ". . . in the exercise of reasonable care," the Senate limited the bill's application to licensed physicians and registered nurses. MSMA objected to neither amendment.

Drs. Lawrence W. Long, association president, and William E. Lotterhos, legislative chairman, expressed satisfaction over the new law.

"The voluntarily assumed obligation of a physician to render care in emergencies, the obligations of the *Principles of Medical Ethics,* and certain statutes make the 'Good Samaritan' law a necessity," they said. "Enactment of this measure was first sought in 1960 when the legislature adjourned before final action could be taken, but we are highly gratified with the splendid support received during the present regular session."

Eight states have previously passed "Good Samaritan" statutes and four, including the successful Mississippi proposal, have been introduced in current state legislative sessions. States with the law on their books are California, Maine, Mississippi, Nebraska, Oklahoma, South Dakota, Texas, Utah, and Wyoming.

Before enactment of the California law, state association officials said, it was difficult to find anyone who would stop at the scene of a highway accident to render assistance because of widespread suits against those who did help. A representative of the Attorney General's office stated that Mississippi has an obscure law requiring persons to stop at accident scenes, validating the need for liability limitation.

Both Drs. Long and Lotterhos were generous in their expressions toward Reps. Marks and McClellan and Sen. Jones.

"These leaders," they stated, "have performed a distinct public service in securing this needed and equitable enactment."

Dr. Ferris Heads State Heart Association

Dr. Lucian Ferris of Vicksburg was inaugurated as president and Joe Latham of Jackson was named president-elect at the close of the Mississippi Heart Association's annual meeting held April 5 in Jackson.

Dr. Ferris succeeds General A. G. Paxton of Greenville.

Other officers are Dr. Raymond Grenfell of Jackson, vice president; Boswell Stevens of Macon, secretary, and S. C. Hart of Jackson, treasurer.

Named to the board of directors were General Paxton, Senator G. V. Montgomery of Meridian, state heart fund chairman, Dr. Frank Baird of Columbus, and J. E. Kizzire of Gulfport.

The annual meeting was held in conjunction with the Association's Ninth Annual Cardiovascular Seminar, which it sponsors in conjunction with the University of Mississippi School of Medicine. Featured lecturers for the seminar, held April 4-6, were Dr. Arthur DeBoer of Chicago, associate, Surgical Department, Northwestern University Medical School; Dr. Edward C. Lambert of New York, associate professor of pediatrics, University of Buffalo School of Medicine; Dr. Arthur M. Master of Englewood, N. J., consultant cardiologist, Mount Sinai Hospital, New York; Dr. Travis Winsor of Los Angeles, associate clinical professor of medicine, University of California School of Medicine, and Dr. Earl H. Wood of Rochester, Minn., professor of physiology, Mayo Foundation Graduate School of the University of Minnesota.



New officers of the Mississippi Heart Association installed during the group's April meeting include from left, sitting, Dr. Lucian Ferris of Vicksburg, president; General A. G. Paxton of Greenville, outgoing president; standing, Joe Latham of Jackson, president-elect; Dr. Raymond Grenfell of Jackson, vice president; Senator G. V. Montgomery of Meridian, new board member, and Boswell Stevens of Macon, secretary.

Session chairman included Dr. Raymond F. Grenfell of Jackson; Dr. David J. VanLandingham of Jackson; Dr. Willard H. Boggan, Jr., of Jackson; Dr. Watts Webb of Jackson; Dr. Rush E. Netterville of Jackson, and Dr. Lucian M. Ferris of Vicksburg.

At the afternoon session of the MHA annual meeting, Dr. Arthur C. Guyton, UMC, spoke on "Cardiovascular Research in the Department of Physiology." Dr. George Wakerlin, AHA medical director, was the banquet speaker. He discussed "Advances in Cardiovascular Research."

Dr. Cooke Named Director Of Blood Bank Association

Dr. Robert S. Cooke, Jr., of Hattiesburg was named district director of the South Central Association of Blood Banks at the organization's annual meeting in March.

Dr. E. Richard Halden, Jr., of Fort Worth, Texas, was named president of the Association which covers a six-state area.

Dallas, Texas, was selected as the meeting site for 1963 with the dates to be announced later.

VA Complex Dedicated In April 1 Ceremonies

Speaking at the April 1 dedication of the new Veterans Administration Center and Hospital, Veterans Affairs Administrator John S. Gleason, Jr., said that the location of the institution adjacent to the University of Mississippi Medical Center was no accident.

Approximately 1,000 Mississippians, including a number of local, state, and national dignitaries attended the dedication of the $14 million facility.

Gleason told the audience, "I am determined to locate all future Veterans Administration hospitals—wherever humanly possible—near first class medical schools.

The Washington administrator promised service "second to none" for the state's 216,000 veterans. Walter R. Byrd, director of the new facility, accepted a dedication certificate from Gleason immediately following the administrator's speech.

Also participating in the ceremony were Dr. W. S. Middleton, VA chief medical director, and P. H. Brownstein, VA chief benefits director.

Among the officials on hand for the ceremony were Governor Ross R. Barnett, Congressmen Thomas Abernethy, Arthur Winstead, John Bell Williams, and William M. Colmer, and Mayor Allen Thompson. Dr. Lawrence W. Long, MSMA president, and Dr. C. G. Sutherland, president of Central Medical Society, were platform guests.

The modern structure, located on Highway 51 North, near St. Dominic's Hospital as well as the University of Mississippi School of Medicine, was actually occupied during February. It has a professional staff of 33 fulltime doctors, 101 nurses, 15 researchers, and 80 consultant and attending physicians. The facility sits on a 28-acre site, and contains some 404,000 square feet of floor space.



Both governmental and medical officials were on hand April 1 for the dedication of the new VA complex. From left to right are Dr. A. L. Gray, state health officer, Mayor Allen C. Thompson of Jackson, Congressman John Bell Williams, Dr. C. G. Sutherland, Central Medical Society president, and Dr. Lawrence W. Long, MSMA president.

The hospital section of the center will accommodate 500 patients. Four hundred and thirty of the beds are designated for general medical and surgical patients, and 40 beds will accommodate pulmonary disease patients, with the remaining 30 beds designated for the treatment of patients with acute neuropsychiatric conditions.

Memphis Surgeon Addresses Clarksdale Society Meet

Dr. Ralph F. Bowers of Memphis, chief of surgery at Kennedy Veterans Hospital, addressed the Clarksdale and Six County Medical Society at the group's March 28 meeting.

Dr. Bowers spoke on the causes and treatment of pancreatitis and in particular on the application of surgical treatment.

The 120th semi-annual meeting of the Society was held at the Coahoma County Hospital for sessions during the afternoon and at the Alcazar, for a banquet.

Other afternoon speakers were Dr. Robert Forman of Clarksdale, radiologist at the Coahoma County Hospital, who discussed bone lesions, and Dr. William Crowson of Clarksdale, who discussed tumors of the colon.

Dr. R. J. Moorhead of Yazoo City, past president of the American Association of Physicians and Surgeons, spoke at the banquet on the work of the Association.

Dr. E. Leroy Wilkins, chairman of the board of censors, presided at the meeting in the absence of Dr. T. K. Chandler of Tunica, president. About 30 doctors representing Tallahatchie, Bolivar, Coahoma, Tunica, and Quitman Counties attended.

Geneticist Among Four Added To Medical School Staff

The University of Mississippi School of Medicine has added four members to its staff, including the state's only medical geneticist.

Dr. Berwind Kaufmann has returned to the University as an associate professor of preventive medicine after 15 months in a medical genetics fellowship at Johns Hopkins University.

Before beginning his special training in October, 1960, Dr. Kaufmann had been an associate professor of physiology at the medical school for two years. He taught biology at Ole Miss from 1948 to 1951 and took two years of medical schooling there.

Other additions to the faculty are three assistant professors, Dr. Billie Putman and Dr. William Fancher in anesthesiology, and Dr. F. Exter Bell in psychiatry. Dr. Bell's appointment is effective in early summer to tie in with the anticipated opening of the new neuropsychiatric unit.

Dr. Bell comes to the University of Mississippi from Houston, Tex. He was graduated from the University of Tennessee School of Medicine and obtained his specialty training at the VA in Houston and at Johns Hopkins.

Both new members of the anesthesiology faculty are native Mississippians. Dr. Putman is a graduate of the University of Mississippi. He received his medical degree from Jefferson Medical College in Philadelphia, Pa., and practiced in Eupora,

Miss., for five years before returning to the University Medical School for additional training.

Dr. Fancher also completed his training at the University of Mississippi after having practiced following graduation from Baylor and internship at Baptist Hospital in Nashville.

Dr. Kaufmann has his B.A. and M.D. degrees from the University of Pennsylvania. He has taught at Hofstra College and was a research assistant in the University of Mississippi physiology department in 1954.

University of Pennsylvania Honors Dr. Rosenkranz

Dr. Otto H. Rosenkranz, who before his retirement was associated with the United States Veterans Administration, was recently honored



Dr. Otto H. Rosenkranz, right, receives the Distinguished Senior Alumnus Certificate of the University of Pennsylvania School of Medicine from Dr. Forrest G. Bratley, also an alumnus.

by the University of Pennsylvania School of Medicine when he was presented a Distinguished Senior Alumnus citation.

A graduate of the school with the class of 1908, Dr. Rosenkranz received the award from Dr. Forrest G. Bratley, also an alumnus, in a presentation at the Rosenkranz home in Jackson.

The award reads: "In commemoration for the many years of skilled and dedicated service he has given to humanity and his profession. In acknowledgement of the esteem in which he is held by his colleagues and associates, and in gratitude for the contribution he has made toward advancing the prestige of his alma mater—historically distinguished as the nation's first school of medicine, professionally distinguished by its heritage of outstanding alumni."

Dr. Rosenkranz spent 31 years in government service, was with the Public Health Service when the VA was created and at that time was transferred to the new agency.

Statewide Cancer Crusade Launched April 1

The statewide Mississippi Cancer Crusade fund raising campaign opened April 1, sparked by the 1962 slogan—"To Cure More, Give More."

According to Dr. Forrest G. Bratley, president of the Mississippi Division, American Cancer Society, the state has contributed $477,758.99 to the national organization during the past ten years. A portion of these funds has been returned to the state, he explained, through research projects subsidized at the Veterans Administration Hospital in Biloxi and the University of Mississippi School of Medicine in Jackson.

Since 1945, the American Cancer Society, through national and divisional offices, has devoted more than $97 million to cancer research, Dr. Bratley said. It has helped train more than 1,700 physicians and scientists since the mid-forties, but nevertheless, in fiscal 1960-61, it was unable to support grant applications in the amount of $2,675,485 that were approved for full support by its Research Advisory Council, he said.

Physicians Invited To Attend Pops Concert

Physicians in Jackson for MSMA's 94th Annual Session are invited to attend the 1962 Pops Concert scheduled for 7:30 on Monday, May 7, at the Memorial Stadium. This year's program, called "Pops Plus," will feature a fine arts exhibit by Mississippi painters, writers, and other artists.

The one-hour concert will be presented by the Jackson Symphony Orchestra with guest artist Pete Doles. The young pianist-singer recently won laurels on the Ted Mack Hour. He is a native of Corinth and a freshman student at the University of Southern Mississippi.

The Exhibition Hall will be open an hour before and after the concert. Groups exhibiting will be the Mississippi Accredited Judges of Flower Shows, the Mississippi Art Association, Children's

Art Association, Mississippi Writers, the Jackson Photographic Society, Ceramic Artist Guild, and Mississippi Chapter of the American Institute of Architects.

Tickets are $2.50 for box seats, $1.50 for reserved seats, and $1.00 for general admission. They are on sale at the box office at the entrance to Memorial Stadium. Children's general admission tickets are fifty cents.

Information and tickets may also be obtained from Dr. Raymond Grenfell, president of the Jackson Symphony Orchestra Association, or Mrs. Guy Gillespie, Jr., chairman of the Pops Concert.

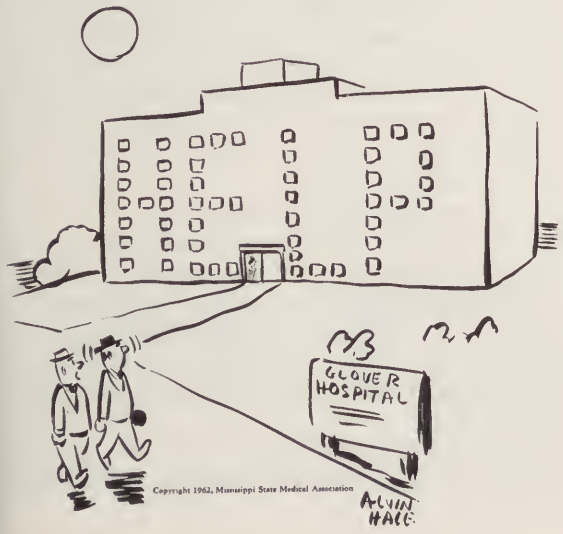
Delta Society Hears Dr. James Hardy

Delta Medical Society held its 77th Semi-Annual meeting on April 11 in Ruleville.

Guest essayist for the meeting was Dr. James D. Hardy of Jackson, professor and chairman of the Department of Surgery, University of Mississippi School of Medicine. Dr. Hardy discussed "Carcinoma of the Lung."

Other speakers were Dr. L. Stacy Davidson, Jr., of Cleveland, "Evaluation of Thyroid Functional Test"; Dr. T. S. McCay and Dr. Toxey E. Hall of Belzoni, "Abdominal Pregnancy—Review of the Literature with a Case Report"; Dr. Clyde Smith of Greenwood, "Criteria for the Radiographic Diagnosis of Peptic Ulceration"; Dr. Thomas V. Stanley of Memphis, Tenn., "Current Trends in the Therapy of Cancer of the Breast," and Dr. G. H. Bagby of Greenville, "The Role of the Anesthesiologist in Medical Practice."

Dr. S. G. Mounger of Greenwood is president of Delta Medical Society and Dr. Howard A. Nelson of Greenwood is secretary-treasurer.



N.C. Physician Discusses Heart Disease Prevention

In a talk before the Western North Carolina Public Health Association, Dr. Lewis Lunsford, Jr., Asheville, N. C., discussed the preventive aspects of several of the more common types of heart disease.

His talk, which is carried in the current issue of the North Carolina State Board of Health *Bulletin,* covers rheumatic heart disease, congenital heart defects caused by German measles occurring during the first three months of pregnancy, and arteriosclerotic heart disease.

As preventive measures for rheumatic heart disease, Dr. Lunsford recommended the daily prophylactic administration of sulfa drugs or penicillin, the prompt and adequate use of penicillin for streptococcal infections, and the improvement of living conditions of underprivileged patients with a history of rheumatic fever.

Dr. Lunsford recommended that expectant mothers be warned to avoid contact with any suspected case of German measles during the first three months of pregnancy. He said that patients exposed during this time should be given gamma globulin injections in an attempt to prevent the infection.

In regard to arteriosclerotic heart disease, Dr. Lunsford discussed the influence of cholesterol, the use of anticoagulants, and the value of exercise.

In conclusion, he observed that most of the recommended preventive measures involved a great deal of cooperation on the part of both the patient and the physician. He observed that some of the procedures suggested have been proven effective beyond any doubt while others were still of unproven value.

Tuberculosis Association Convenes in Jackson

The 50th annual meeting of the Mississippi Tuberculosis Association was held April 19 in Jackson with Dr. Clyde A. Watkins, president, presiding.

Physician participants in the program included Dr. Joe W. Wiggins of Vicksburg; Dr. Cecil Jenkins of Jackson, and Dr. Guy D. Campbell of Jackson.

The medical section of the state Tuberculosis Association, the Mississippi Thoracic Society, held its annual meeting on April 18. Speakers for the event were Dr. William W. Waring of Tulane

University School of Medicine and Dr. John P. Wyatt of St. Louis University School of Medicine. Dr. Fred Allison, Jr., served as president of the Thoracic Society during the past year.

Dr. Long To Address European Meeting

Two southern surgeons will be essayists before the Second Congress of the European Federation of the International College of Surgeons which meets in Amsterdam, the Netherlands, during



Dr. Curtice Rosser, Dallas, right, and Dr. Lawrence W. Long, Jackson, will address the Second Congress of the European Federation of the International College of Surgeons. (Photo courtesy of Steve Yates, Executive Secretary, Jefferson County Medical Society, Birmingham, Ala.)

May 15-19. Dr. Lawrence W. Long, Jackson, and Dr. Curtice Rosser, Dallas, will address the multination group.

Dr. Long's subject will be "Peptic Ulcer: A Plea for Earlier Definitive Treatment." Dr. Rosser is expected to discuss a subject in the field of proctology. More than 100 American physicians plan to attend the meeting.

The scientific assembly of the congress will be held at the Royal Tropical Institute in Amsterdam with the Netherlands section of the college acting as host organization. Dr. and Mrs. Long will leave Jackson following adjournment of the 94th Annual Session and his retirement from the presidency of the state medical association. (They will arrive in Amsterdam on KLM Royal Dutch Airlines on May 15.)

Following the congress, the Longs plan an extended continental vacation with visits slated to London, Paris, Milan, Rome, and Palermo.

State Rehabilitation Group Names Officers

Delegates to the March 22 meeting of the Mississippi Chapter of the National Rehabilitation Association elected W. P. Bobo president.

Other officers named were Billy M. Day, Jackson, vice president; Donnie Brown, Jackson, secretary, and T. G. Laird, Jackson, treasurer.

Mr. Bobo, also of Jackson, is the director of the Crippled Children's Service of the State Department of Education.

Howard T. Stubbs of Greenville and Jim L. Carballo of Jackson were named directors.

Dr. Arthur C. Guyton, professor and chairman of the Department of Physiology and Biophysics at the University of Mississippi School of Medicine, gave the banquet address.

N.Y. Health Head Attacks Chiropractic Use of X-Ray

New York, one of four states denying legal recognition to chiropractic, saw the introduction of a bill to license chiropractors in its current legislative session.

Writing in the *New York State Department of Health Weekly Bulletin,* Dr. Herman E. Hilleboe, state health commissioner, took exception to the bill. He particularly objected to Section 6558, par. 3 which read: "A license to practice chiropractic shall not permit the holder thereof . . . to use radiotherapy (except that x-ray may be used for chiropractic analysis provided that protective devices and techniques approved by the Commissioner of Health are used) . . ."

New York Chiropractors are denied the use of x-ray by administration ruling under a regulation of the State Sanitary Code which prohibits the use of x-rays on human beings by unlicensed practitioners. The administration interpretation of the regulation has been upheld by the New York Supreme Court.

In his statement, Dr. Hilliboe said, "I do not approve of the use of x-ray examination for any purpose by chiropractors." The commissioner said his main objection to chiropractic employment of x-ray was based upon "the obvious absence on their part of clinical judgment in determining when and when not to use x-rays on persons who come to them."

He said that by their own statement the New York chiropractors took x-ray films of the entire

spine on 75 per cent to 90 per cent of their new patients, usually without prior physical examination and in disregard of whether the patient was man, woman, or child. He observed that doctors of medicine reported that they took x-ray films of the spine on only 10 to 15 per cent of their new patients—and then only when the benefits outweighed the risk.

Dr. Hilleboe also stated that the x-ray devices submitted by the New York chiropractic group to his technical staff were of questionable effectiveness in cutting down exposure to the reproductive organs. He observed that radiologists have repeatedly warned that full spinal x-ray examinations expose the male and female reproductive organs to harmful effects.

The commissioner concluded, "If Section 6558, par. 3 of this bill were enacted into law, I have grave doubts that it could be policed or enforced." He said, ". . . our legislators have the right—and the responsibility embodied in that right—to pass any legislation they deem advisable. As state commissioner of health, I have the duty and the responsibility to inform the governor, the legislature, and the public of the safeguards necessary to protect the health and ensure the safety of New York's present and future citizens.

University Announces Special Speakers for May

The University of Mississippi School of Medicine has slated two special speakers for the month of May. All licensed physicians are invited to attend the addresses.

On Friday, May 4, E. Gartly Jaco, Ph.D., will speak on "The Subculture of Medicine." His address, which is scheduled for 1 p.m., will be the third in the series of Social Science in Medicine lectures. Dr. Jaco is a research associate in the School of Applied Social Sciences at Western Reserve University in Cleveland, Ohio. He is co-editor-in-chief of the *Journal of Health and Human Behavior.*"

Dr. Eric Reiss of St. Louis will speak on Thursday, May 17, as part of the Medical Education for National Defense program. An associate professor of medicine at Washington University, Dr. Reiss will discuss "The Influence of Fallout." His address is set for 5 p.m.



Dr. J. P. Culpepper, III, Is Ship's Surgeon for Cruise

Dr. J. P. Culpepper, III, currently a resident in general surgery at Ochsner Foundation Hospital in New Orleans, has been appointed ship's surgeon on the S. S. Christobal for the freighter's May 1-10 cruise.

The ship, owned by the Panama Canal Company, carries about 200 passengers.

Dr. and Mrs. Culpepper will sail from New Orleans for Christobal on the east coast of Panama on Tuesday, May 1, returning on Thursday, May 10.

Son of Dr. and Mrs. J. P. Culpepper, Jr., of Hattiesburg, Dr. Culpepper was named last July as the Ochsner Foundation's First American Cancer Society Clinical Fellow in Surgery. The appointment followed receipt by the Foundation of an American Cancer Society grant for special graduate training in cancer treatment and research.

Cleveland Physician Receives Fifty Year Club Insignia

Dr. James Purvey Wiggins of Cleveland was awarded a Fifty Year Club pin and certificate on March 5 as the climax to a reception honoring him, Dr. Oscar E. Ringold, and Dr. Jack Russel.

The three doctors were practicing in Cleveland at the time the City Hospital was opened in 1938 and served as members of its staff until its recent closing.

Dr. Russel made the presentation to Dr. Wiggins in behalf of the Mississippi State Medical Association.

Dr. Wiggins received his medical degree from Memphis Hospital Medical College in 1908 and opened his practice in Eupora, Miss. He moved to Merigold in 1914 and to Cleveland in 1931.

Dr. Raymond Martin Named AED Outstanding Alumnus

Dr. Raymond S. Martin, Jackson surgeon, has been named the outstanding alumnus of the Millsaps College chapter of Alpha Epsilon Delta, premedical honorary. The award was presented at the group's annual banquet on March 29.

Dean James S. Ferguson presented the citation to Martin "for distinguished service in his profession and as a leader in all phases of community life."

A 1942 graduate of Millsaps, Martin was the featured speaker of the evening.

Membership in AED is determined by leadership, scholarship, expertness, character, and personality. The honorary strives to bridge the gap between premedical and medical school.

Ophthalmologist Heads State Numismatic Group

Dr. D. C. Montgomery, Jr., Greenville ophthalmologist, was elected president of the Mississippi Numismatic Association at its organizational meeting.

More than 1,000 guests and collectors and 47 dealers from all parts of the United States attended the two-day event which was held in Greenville.

Dr. Montgomery also took first place in exhibits with his entry in the gold category.

Four Physicians Renamed To Blue Plan Board

Four Mississippi physicians have been re-elected to the Board of Directors of the Mississippi Blue Cross-Blue Shield.

Renamed at the annual winter meeting were Drs. R. B. Caldwell of Baldwyn; G. Swink Hicks, Natchez; George H. Martin, Vicksburg, and T. E. Ross, Hatticsburg.

The physician-directors were nominated by the MSMA House of Delegates at the 93rd Annual Session and elected by the state Blue Cross-Blue Shield Board.

West Virginia Medical Journal Names New Editor

Dr. George F. Evans of Clarksburg has been named editor of the *West Virginia Medical Journal,* official publication of the West Virginia State Medical Association. The appointment was announced following a meeting of the publication committee in Charleston.

Dr. Evans succeeds the late Dr. Walter E. Vest of Huntington, who served as editor from 1937 until his death on Jan. 28.

A native of Canada, Dr. Evans has served as an associate editor of the *Journal* since 1956. He served a term as president of the State Medical Association, 1958-59, and is a Fellow of the American College of Physicians and the American College of Chest Physicians.

Pfizer Receives License For Type III Sabin Vaccine

Charles Pfizer and Company, Inc., has received a license for Type III Sabin oral polio vaccine from the United States Public Health Service.

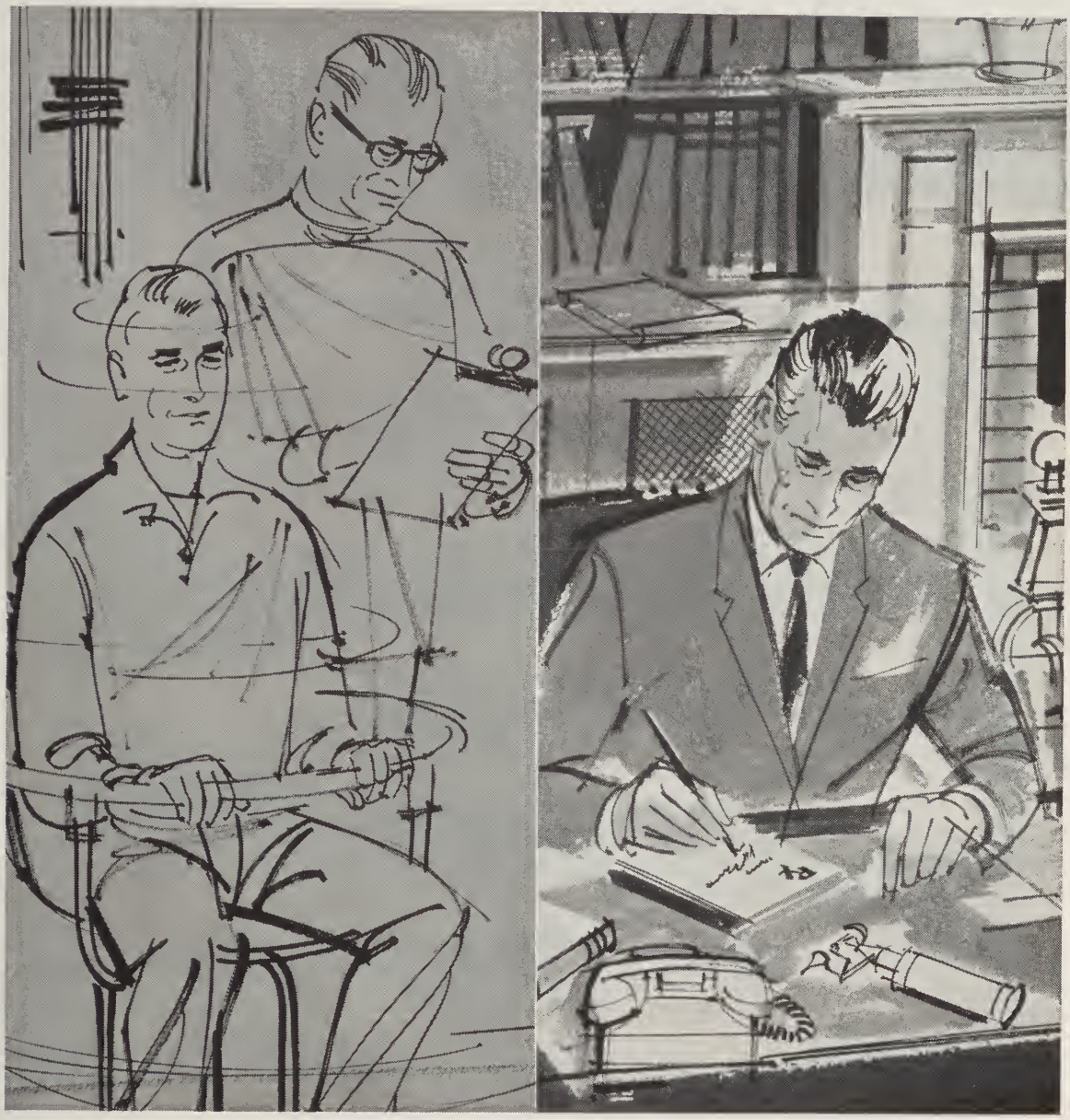
The new license provides the drug company with oral vaccines against all three types of polio. Licenses for Types I and II vaccines were granted to Pfizer last year.

To date, more than five million doses of Type I and II oral polio vaccine supplied by Pfizer Laboratories Division of Charles Pfizer and Company have been administered in the United States for control of epidemics and in elective immunization programs.

Meredith C. Hough, general manager of Pfizer Laboratories, pointed out that Pfizer's present inventory obviously would not permit "overnight vaccination of the entire population but will be sufficient to meet emergency epidemic control situations."

"When combined with production now underway," he said, "it should also be sufficient to initiate additional vaccination programs in accordance with USPHS recommendations."

In order to permit full utilization of domestic facilities for the production of the vitally-needed Salk vaccine, Mr. Hough said that research and production for the Sabin oral polio vaccine have been carried out at the company's laboratories in Sandwich, England, where necessary personnel and facilities were immediately available. The company is now building new facilities at Pfizer's biologic production plant in Terre Haute, Ind. admitting of production of Sabin vaccine.



in 1948
unique therapeutic achievement

in 1962
universal therapeutic acceptance

Dramamine® in vertigo

brand of dimenhydrinate

world standard for control of vertigo, nausea and emesis associated with

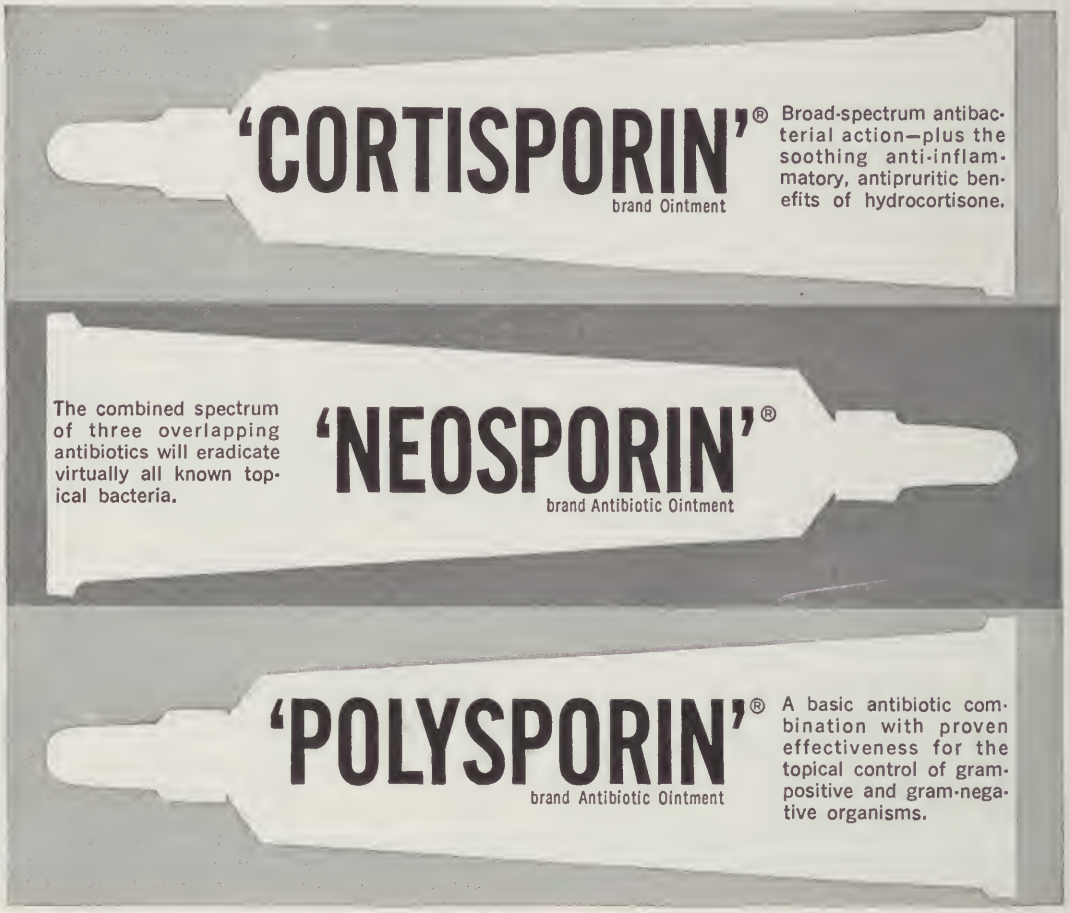
■ Motion Sickness ■ Postoperative States ■ Labyrinthitis ■ Hypertension ■ Radiation Sickness ■ Ménière's Syndrome ■ Postfenestration Syndrome ■ Antibiotic Therapy ■ Migraine Headache ■ Pregnancy ■ Narcotization ■ Electroshock Therapy

Tablets/Liquid/Ampuls (for I. M. or I. V. use)/Supposicones®

SEARLE

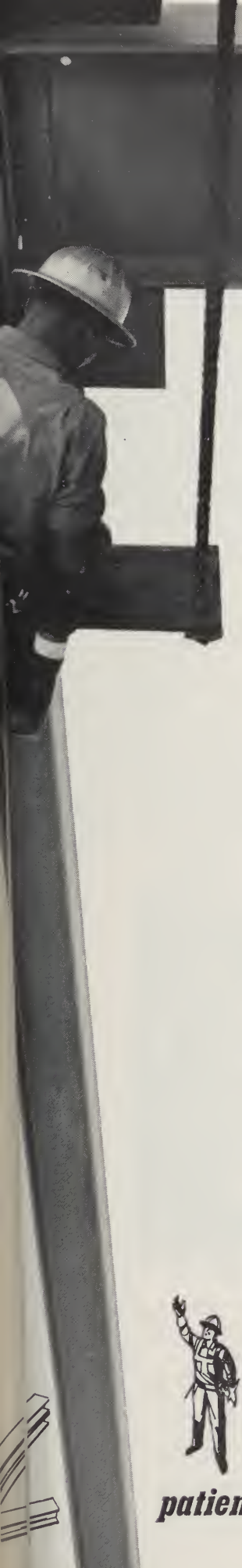
Research in the Service of Medicine

'B. W. & Co.' 'Sporin' Ointments rarely sensitize . . . give decisive bactericidal action for most every topical indication



Contents per Gm.	'Polysporin'®	'Neosporin'®	'Cortisporin'®
'Aerosporin'® brand Polymyxin B Sulfate	10,000 Units	5,000 Units	5,000 Units
Zinc Bacitracin	500 Units	400 Units	400 Units
Neomycin Sulfate	—	5 mg.	5 mg.
Hydrocortisone	—	—	10 mg.
Supplied:	Tubes of 1 oz., ½ oz. and ⅛ oz. (with ophthalmic tip)	Tubes of 1 oz., ½ oz. and ⅛ oz. (with ophthalmic tip)	Tubes of ½ oz. and ⅛ oz. (with ophthalmic tip)

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York



BUILDS *body tissue...*

BUILDS *sense of well-being in the weak and debilitated*

WINSTROL®

BRAND OF STANOZOLOL

new physiotonic

NOW—the **highest** anabolic plus the **lowest** androgenic activity* with well-tolerated WINSTROL therapy

...for elderly patients with anorexia, asthenia and general debility—
MARKED IMPROVEMENT IN APPETITE, STRENGTH AND SENSE OF WELL-BEING

Fourteen patients, age 66 to 77, treated with Winstrol, usually in a dosage of 6 mg. daily, for various periods in order to correct underweight, weakness and chronic fatigue. Marked improvement occurred in appetite, sense of well-being and strength; almost all patients gained weight.

...for patients with osteoporosis and arthritis—
RELIEF OF PAIN, IMPROVEMENT IN MOBILITY

Twenty-one patients with arthritis treated with Winstrol for pain and limited mobility due to osteoporosis. With few exceptions, dosage was 6 mg. daily; duration of treatment varied from a few weeks to 6 months. In 8 patients relief of symptoms was excellent and in 6 moderate. Of the 7 persons in whom no relief was obtained, 5 had received treatment for less than one month and some had been given doses below 6 mg.

...for patients with malignant disease—
NOTABLE WEIGHT GAINS, INCREASED APPETITE AND SENSE OF WELL-BEING

Twenty-six patients, mostly women, weak, emaciated and seriously ill, were administered Winstrol in dosage of 6 mg. daily for periods extending up to 14 months (average 6.7 months). Notable weight gains occurred. Patients showed increased appetite, alertness and confidence, better appearance, increased mobility and tolerance to pain.

...for patients with chronic, non-malignant disorders—
IMPROVEMENT IN WEIGHT AND GENERAL ACTIVITY, INCREASED SENSE OF WELL-BEING

Eight patients with advanced tuberculosis, bronchopulmonary disease, nephritis and ulcerative colitis treated with 6 mg. of Winstrol daily for from 3 to 4 months. Gains in weight varied from 6 to 27 pounds with increased sense of well-being and improvement in general activity.

...for undernourished, underweight children and adolescents—
NOTABLE IMPROVEMENT IN APPETITE AND OUTLOOK, MARKED INCREASE IN WEIGHT AND HEIGHT

One hundred and twenty children, age 1 to 11 years, underweight and in poor health, were given Winstrol for several months. Majority received daily dosage of from 2 to 4 mg. In nearly all, appetite was improved. Over 70 per cent showed significant gains in weight of from 5 to 17 pounds.

DOSAGE: Usual adult dose, one 2 mg. tablet t.i.d. just before or with meals; children from 6 to 12 years, up to 1 tablet t.i.d.; children under 6 years, ½ tablet b.i.d. Available in bottles of 100 tablets.

Complete bibliography and literature available on request. Before prescribing, consult literature for additional dosage information, possible side effects and contraindications.

*animal data

WITH NEW
WINSTROL

patients look better...feel stronger—because they are stronger

Winthrop LABORATORIES



Out-Patient Clinic and Offices

HILL CREST SANITARIUM

Established in 1925

FOR NERVOUS AND MENTAL DISEASES
AND ADDICTION PROBLEMS

James A. Becton, M.D.
P. O. Box 2896, Woodlawn Station, Birmingham 6, Ala.

James Keen Ward, M.D.
Phone 595-1151 and 595-1152

APPALACHIAN HALL

ESTABLISHED — 1916

ASHEVILLE NORTH CAROLINA



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.

Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.

Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

Wm. Ray Griffin, Jr., M.D.
Robert A. Griffin, M.D.

Mark A. Griffin, Sr., M.D.
Mark A. Griffin, Jr., M.D.

For rates and further information, write: APPALACHIAN HALL, ASHEVILLE, N. C.



Emotional control regained...a family restored... thanks to a doctor and 'Thorazine'

During the past seven years, 'Thorazine' has become the treatment of choice for moderate to severe mental and emotional disturbances because it is:

- specific enough to relieve underlying fear and apprehension
- profound enough to control hyperactivity and excitement
- flexible enough so that in severe cases dosage may be raised to two or three times the recommended starting level

Experience in over 14,000,000 Americans confirms the fact that, in most patients, the potential benefits of 'Thorazine' far outweigh its possible undesirable effects.

Smith Kline & French Laboratories SK&F

Thorazine®

brand of chlorpromazine

A fundamental drug
in both office and hospital practice

Posed by professional models.

For prescribing information, please see PDR or SK&F literature.



Today's little "limey" needs a half barrel of orange juice

...or, to be exact, a total of 2,106 ounces in his first two years. And how much he'll need during his first twenty years would have to be measured by the truckload, because the need for the nutrients contained in Florida orange juice continues throughout life.

How our little "limey" or any of your other patients obtain the vitamins and nutrients found in citrus fruits is important to them and to you. There are so many wrong ways, so many substitutes and imitations for the real thing.

For a way that combines real nutrition with real pleasure, there's nothing better than the oranges and grapefruit ripened under Florida's own sunshine. Somehow, nothing can surpass the result of the combination of sun, air, temperature, and soil found in Florida.

It's good nutrition to encourage people to drink orange juice. It's even more judicious to encourage them to drink the juices and eat the fruits watched over by the Florida Citrus Commission. These men set the world's highest standards of quality in fresh frozen, canned, or cartoned citrus fruit and juices.

When you suggest to your patient that they have a big glass of orange juic for breakfast, or for a snack, or whe they want to raid the refrigerator, th deliciousness of Florida orange juice wi give you assurance that they'll *want* carry out your recommendation. You be helping them to the finest drink the is—by the glassful or the barrel.

© Florida Citrus Commission, Lakeland, Flor



SYNergized aspIRIN

*Synirin®

Acetylsalicylic acid, 5 gr.
Pentobarbital (acid), 1/8 gr.

Simultaneous action beginning promptly
lasting four or five hours

Synirin was formulated
for a two-tablet dose for adults
and a one-tablet dose
for children from 5 to 12 years.
May be repeated every four hours
for the relief of pain

Dispensed in bottles of 100 and 1000 tablets

WM. P. POYTHRESS & CO., INC., RICHMOND, VIRGINIA

Manufacturers of ethical pharmaceuticals since 1856

MEETINGS

NATIONAL AND REGIONAL

American Medical Association, June 24-28, 1962, Chicago, Ill. F. J. L. Blasingame, Executive Vice President, 535 N. Dearborn St., Chicago 10, Ill.

American Academy of General Practice, April 1-4, 1963, Chicago, Ill. Mr. Mac F. Cahal, Executive Director, Volker Blvd., at Brookside, Kansas City 12, Mo.

American College of Surgeons, Clinical Congress, Oct. 15-19, 1962, Atlantic City. William E. Adams, 40 E. Erie St., Chicago 11, Secretary.

STATE AND LOCAL

Mississippi State Medical Association, May 7-10, 1962, Jackson. Mr. Rowland B. Kennedy, Executive Secretary, 735 Riverside Drive, Jackson.

Mississippi Chapter, American College of Surgeons, Nov. 16, 1962, Heidelberg Hotel, Jackson. Edward C. Hamilton, 14th St. and 25th Ave., Gulfport, Secretary.

Amite-Wilkinson Counties Medical Society, First Tuesday March, June, September, December. S. E. Field, Centreville, Secretary.

Central Medical Society, First Tuesday Monthly, 6:30 p.m., Robert E. Lee Hotel, Jackson. George E. Gillespie, 514-A East Woodrow Wilson Drive, Jackson, Secretary.

Claiborne County Medical Society. D. M. Segrest, Port Gibson, Secretary.

Clarksdale and Six Counties Medical Society, Second Wednesday March and November, 2:00 p.m., Clarksdale. Whitman B. Johnson, Jr., 645 Evelyn Ave., Clarksdale, Secretary.

Coast Counties Medical Society, First Wednesday March, June, September, and November. Charles N. Floyd, 1412-23rd Ave., Gulfport, Secretary.

Delta Medical Society, Second Wednesday April and October. Howard A. Nelson, 308 Fulton St., Greenwood, Secretary.

DeSoto County Medical Society, Second Thursday January, April, July, and October, 1:00 p.m., Hernando Motel Cafe, Hernando. L. L. Minor, Route 9, Memphis 9, Tenn., Secretary.

East Mississippi Medical Society, First Tuesday February, April, June, August, October, and December. Hugh S. Rayner, Jr., 1216-21st Ave., Meridian, Secretary.

Homochitto Valley Medical Society, Fourth Tuesday Monthly, 7:30 p.m., Natchez Country Club, Natchez. W. T. Colbert, Natchez General Hospital, Natchez, Secretary.

North Central District Medical Society, Second Wednesday March and September. Robert B. Townes, Jr., 1196 Mound St., Grenada, Secretary.

Northeast Mississippi Medical Society, Second Tuesday March, June, September, and December, Tupelo. Thomas W. Wesson, 421 Main St., Tupelo, Secretary.

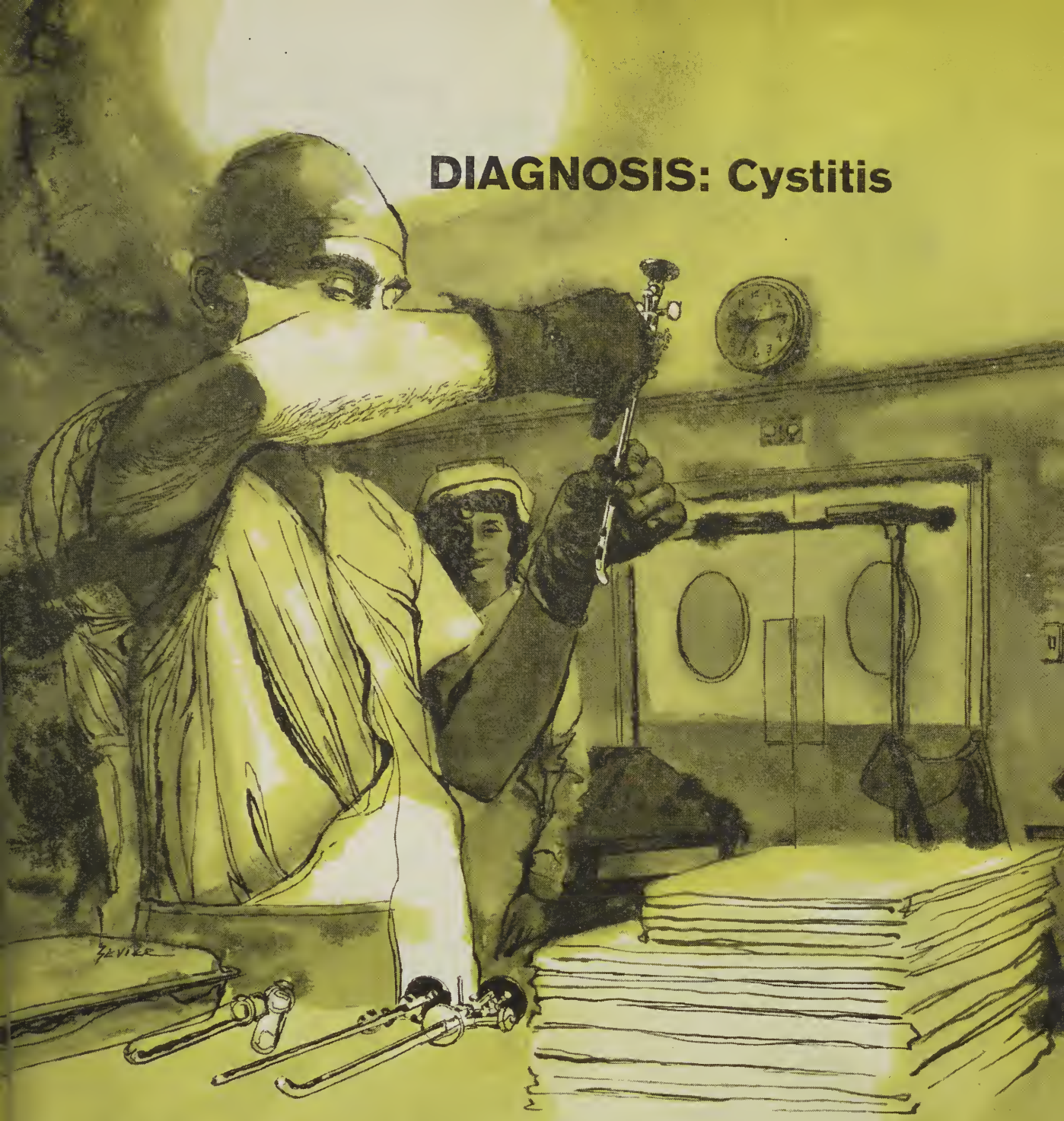
North Mississippi Medical Society, First Thursday January, April, and October, Oxford. Marcus E. Morrison, 512 Van Buren Ave., Oxford, Secretary.

Pearl River County Medical Society, Second Monday March, June, September, and December. Samuel O. Massey, Jr., 220 E. Canal St., Picayune, Secretary.

South Mississippi Medical Society, Second Thursday March, June, September, and December. Thomas F. Puckett, 715 Arledge St., Hattiesburg, Secretary.

Tri-County Medical Society, Second Tuesday March, June, September, and December. A. V. Beacham, Magnolia, Secretary.

West Mississippi Medical Society, Second Tuesday January, April, July, and October, 7:00 p.m., Old Southern Tea Room, Vicksburg. Tom H. Mitchell, The Street Clinic, Vicksburg, Secretary.



THERAPEUTIC NEED: Suppression of the bacteriuria.

ANTIBIOTIC: DECLOMYCIN®

Demethylchlortetracycline Lederle

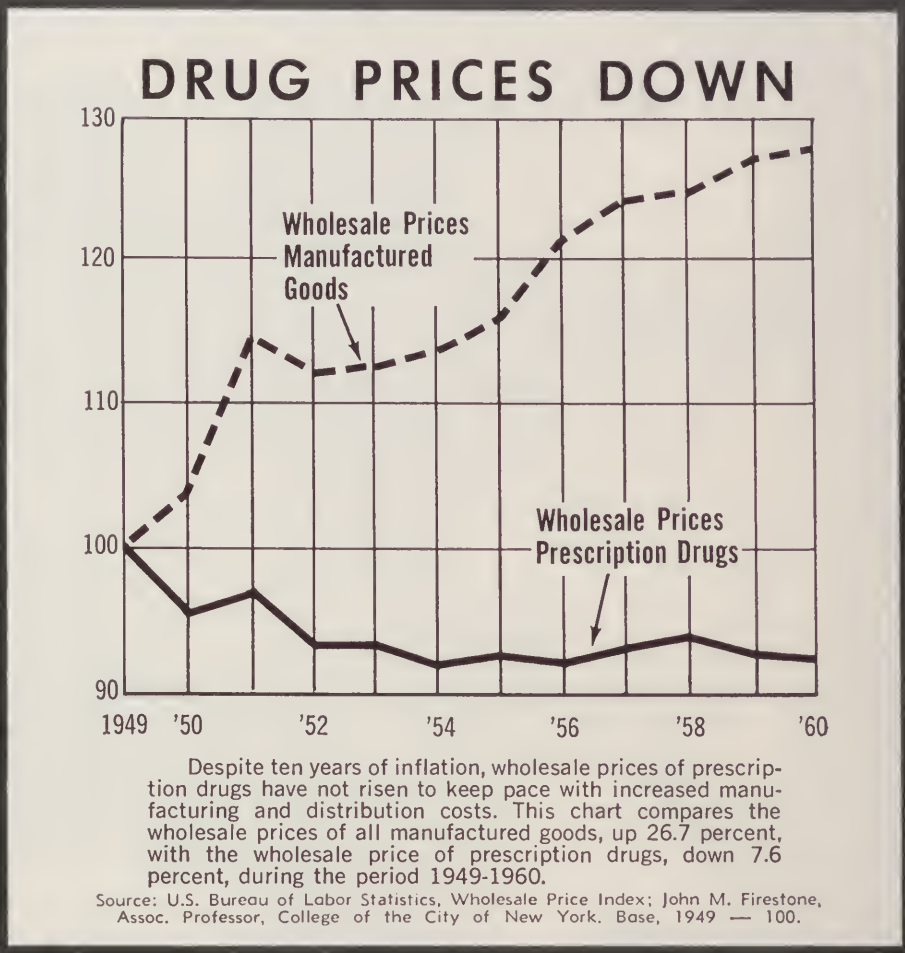
because it provides effective antibacterial activity in the urinary tract.

Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle

The facts on Drug Prices:



Despite ten years of inflation, wholesale prices of prescription drugs have not risen to keep pace with increased manufacturing and distribution costs. This chart compares the wholesale prices of all manufactured goods, up 26.7 percent, with the wholesale price of prescription drugs, down 7.6 percent, during the period 1949-1960.

Source: U.S. Bureau of Labor Statistics, Wholesale Price Index; John M. Firestone, Assoc. Professor, College of the City of New York. Base, 1949 — 100.

Over the past two years, there's been a lot of talk in the press about "the high price of drugs." You've read it yourself—and probably many of your patients have asked about it.

What are the facts?

According to a recent study by Professor John M. Firestone, economist of the City College of New York, manufacturers' prices on ethical drugs actually *declined* 7.6 per cent between 1949 and 1960. (And preliminary 1961 figures indicate a further drop.)

In contrast, the wholesale prices of all manufactured goods rose 26.7 per cent during the same period.

The graph shows this contrast at a glance.

The 12 years it covers marked the introduction of many of the most valuable drugs of the modern armamentarium: the broad-spectrum antibiotics, the steroid hormones and their analogues, the oral diuretics, the ataractics and psychic energizers, and the hypotensive agents.

That so much fruitful research was carried out *while prices were simultaneously being lowered* is one of the least-known, yet most remarkable aspects of the pharmaceutical revolution of our time.

THIS MESSAGE IS BROUGHT TO YOU ON BEHALF OF THE PRODUCERS OF PRESCRIPTION DRUGS.
***PHARMACEUTICAL MANUFACTURERS ASSOCIATION** • 1411 K. STREET, N.W., WASHINGTON, D.C.*

In internal medicine, the narcotic of choice for your patients in pain is

DEMEROL®

HYDROCHLORIDE

The spasmolytic action of Demerol makes it valuable for relief of symptoms due to smooth muscle spasm, which are often aggravated by morphine.

Demerol is particularly useful in intestinal and renal colic, because its potent pain-relieving effect is accompanied by antispasmodic action on the lower intestine and the urinary tract. In myocardial infarction, Demerol is less likely than morphine to induce nausea.

Winthrop LABORATORIES
New York 18, N.Y.

Subject to regulations of The Federal Bureau of Narcotics.

DEMEROL (BRAND OF MEPERIDINE), TRADEMARK REG. U.S. PAT. OFF.

Before prescribing consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.



"All the world's a stage..
And one man in his time
plays many parts,
His acts being seven ages..."*

*As You Like It, Act II, Sc. 7

through all seven ages of man

VISTARIL®

effective anxiety control with a wide margin of safety



in the "frantic forties"—For many patients in their "frantic forties," the pace never slackens—may even accelerate—while tensions multiply and physical resources dwindle. Out of this seedbed of stresses and anxieties grow much of the alcoholism, psychosomatic illness, and sympathetic overactivity of the middle years.

In each of these areas, VISTARIL is often effective alone or as an adjunct to other therapy. For example, in his series of 67 patients, King[1] found that 62 showed remission of anxiety, tension, nervousness and insomnia, as well as alleviation of symptoms associated with various functional and psychophysiological disturbances. He concludes that VISTARIL is well suited for use in the practice of internal medicine.

In the emergent situation, VISTARIL, administered parenterally, is a valuable aid to the physician in managing patients who escape psychic conflict via alcohol. According to Weiner and Bockman,[2] who obtained beneficial results in 81% of 175 patients studied, hydroxyzine (VISTARIL) may well be considered a tranquilizer of choice in the management of the acutely agitated alcoholic.

1. King, J. C.: Int. Rec. Med. 172:669, 1959. 2. Weiner, L. J., and Bockman, A. A.: Sci. Exhibit, A.M.A., Ann. Meet., New York City, June 26-30, 1961.

VISTARIL® CAPSULES AND ORAL SUSPENSION
HYDROXYZINE PAMOATE
VISTARIL® PARENTERAL SOLUTION
HYDROXYZINE HYDROCHLORIDE

Science for the world's well-being® Pfizer PFIZER LABORATORIES
Division, Chas. Pfizer & Co., Inc.
New York 17, New York

See "IN BRIEF" on the next page

IN BRIEF VISTARIL®

VISTARIL, hydroxyzine pamoate (oral) and hydroxyzine hydrochloride (parenteral solution), is a calming agent unrelated chemically to phenothiazine, reserpine, and meprobamate.

VISTARIL acts rapidly in the symptomatic treatment of a variety of neuroses and other emotional disturbances manifested by anxiety, apprehension, or fear—whether occurring alone or complicating a physical illness. The versatility of VISTARIL in clinical indications is matched by wide patient range and a complete complement of dosage forms. The calmative effect of VISTARIL does not usually impair discrimination. No toxicity has been reported with the use of VISTARIL at the recommended dosage, and it has a remarkable record of freedom from adverse reactions.

INDICATIONS: VISTARIL is effective in premenstrual tension, the menopausal syndrome, tension headaches, alcoholic agitation, dentistry, and as an adjunct to psychotherapy. It is recommended for the management of anxiety associated with organic disturbances, such as digestive disorders, asthma, and dermatoses. Pediatric behavior problems and the emotional illnesses of senility are also effectively treated with VISTARIL.

ADMINISTRATION AND DOSAGE: Dosage varies with the state and response of each patient, rather than with weight, and should be individualized for optimum results. The usual adult oral dose ranges from 25 mg. t.i.d. to 100 mg. q.i.d. Usual children's oral dose: under 6 years, 50 mg. daily in divided doses; over 6 years, 50-100 mg. daily in divided doses.

Parenteral dosage for adult psychiatric and emotional emergencies, including acute alcoholism: I.M.—50-100 mg. Stat., and q.4-6h., p.r.n. I.V.—50 mg. Stat., maintain with 25-50 mg. I.V. q.4-6h., p.r.n.

SIDE EFFECTS: Drowsiness may occur in some patients; if so, it is usually transitory, disappearing within a few days of continued therapy or upon reduction of dosage. Dryness of mouth may be encountered at higher doses.

PRECAUTIONS: Drowsiness may occur in some patients. The potentiating action of hydroxyzine should be taken into account when the drug is used in conjunction with central nervous system depressants. Do not exceed 1 cc. per minute I.V. Do not give over 100 mg. per dose I.V. Parenteral therapy is usually for 24-48 hours, except when, in the judgment of the physician, longer-term therapy by this route is desirable.

SUPPLIED: VISTARIL *Parenteral Solution* (hydroxyzine hydrochloride)—10 cc. vials, 25 mg. per cc. and 50 mg. per cc.; 2 cc. ampules, 50 mg. per cc. VISTARIL *Capsules* (hydroxyzine pamoate)—25, 50, and 100 mg. VISTARIL *Oral Suspension* (hydroxyzine pamoate)—25 mg. per 5 cc. teaspoonful.

More detailed professional information available on request.

Science for the world's well-being®

Pfizer PFIZER LABORATORIES
Division, Chas. Pfizer & Co., Inc.
New York 17, New York

Chest Physicians Plan Annual Meeting

The American College of Chest Physicians will hold its five-day annual meeting at the Morrison Hotel, Chicago, June 21-25.

The scientific program will include postgraduate seminars, open forums, a cine symposium, round table luncheon sessions, and motion pictures and will cover such topics as tuberculosis, underwater physiology, chest roentgenology, cardiopulmonary trauma, histoplasmosis, congenital heart disease, and cardiac surgery.

The annual Presidents' Banquet, at which the College Gold Medal will be awarded to a physician for meritorious achievement in chest diseases, will be held Sunday, June 24.

On Monday, June 25, there will be a joint meeting between the American College of Chest Physicians and the American Medical Association at McCormick Place, Chicago's new convention center. This program will include, in addition to the regular scientific sessions, six round table luncheon sessions and will deal with such topics as surgical treatment of acquired cardiovascular diseases, special problems in diseases of the chest, and inhalation therapy.

The popular Fireside Conferences, again part of the joint meeting with the AMA, will be at the Morrison Hotel. Topics included in the 30 round table sessions are: bronchial carcinoma, bronchitis and pneumonitis, emphysema, cardiac surgery, myocardial infarction, and the smoking controversy.

For additional information, write Murray Kornfeld, executive director, American College of Chest Physicians, 112 East Chestnut Street, Chicago 11.

Medical Library Association Announces Conference

The 61st annual meeting of the Medical Library Association will be held in Chicago from June 4-8, 1962 at the Sheraton-Chicago Hotel. Chairman of exhibits is Charles Hughes, Library of Medical Sciences, University of Illinois, 1853 W. Polk St., Chicago 12. Convention chairman is Donald Washburn, D.D.S., American Dental Association, 222 E. Superior St., Chicago 11.

MENTAL MANORS

Neurotic: Person who builds castles in the air.
Psychotic: Person who lives in castles in the air.
Psychiatrist: Person who collects rents on aforementioned castles.



Put your low-back patient back on the payroll

Soma relieves stiffness —stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, *fast!*

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

This was demonstrated by Kestler in a controlled study: average time for full recovery was 11.5 days with Soma, 41 days without Soma. (J.A.M.A. **172**:2039, April 30, 1960.)

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets.
USUAL DOSAGE: 1 TABLET Q.I.D.

The muscle relaxant with an independent pain-relieving action

SOMA®

(carisoprodol, Wallace)

Wallace Laboratories, Cranbury, New Jersey



Day and night– less wheezing, coughing, labored respiration in chronic bronchitis and emphysema

New Isuprel Compound Elixir is a balanced expectorant bronchodilator. It contains potassium iodide to promote expectoration and relieve dry cough. Its three bronchodilators, Isuprel, ephedrine, and theophylline, keep bronchi continuously dilated. Luminal is included to negate possible side effect from adrenergic medication and to provide very mild sedation for the patient.

New Isuprel Compound Elixir alleviates symptoms...prolongs relief in chronic bronchitis and emphysema.

Each good-tasting vanilla-flavored tablespoon (15 cc.) contains:

Isuprel® (brand of isoproterenol) HCl	2.5 mg.
Ephedrine sulfate	12 mg.
Theophylline	45 mg.
Potassium iodide	150 mg.
Luminal® (brand of phenobarbital)	6 mg.
Alcohol	19%

Adult Dose: 2 tablespoons 3 or 4 times daily.

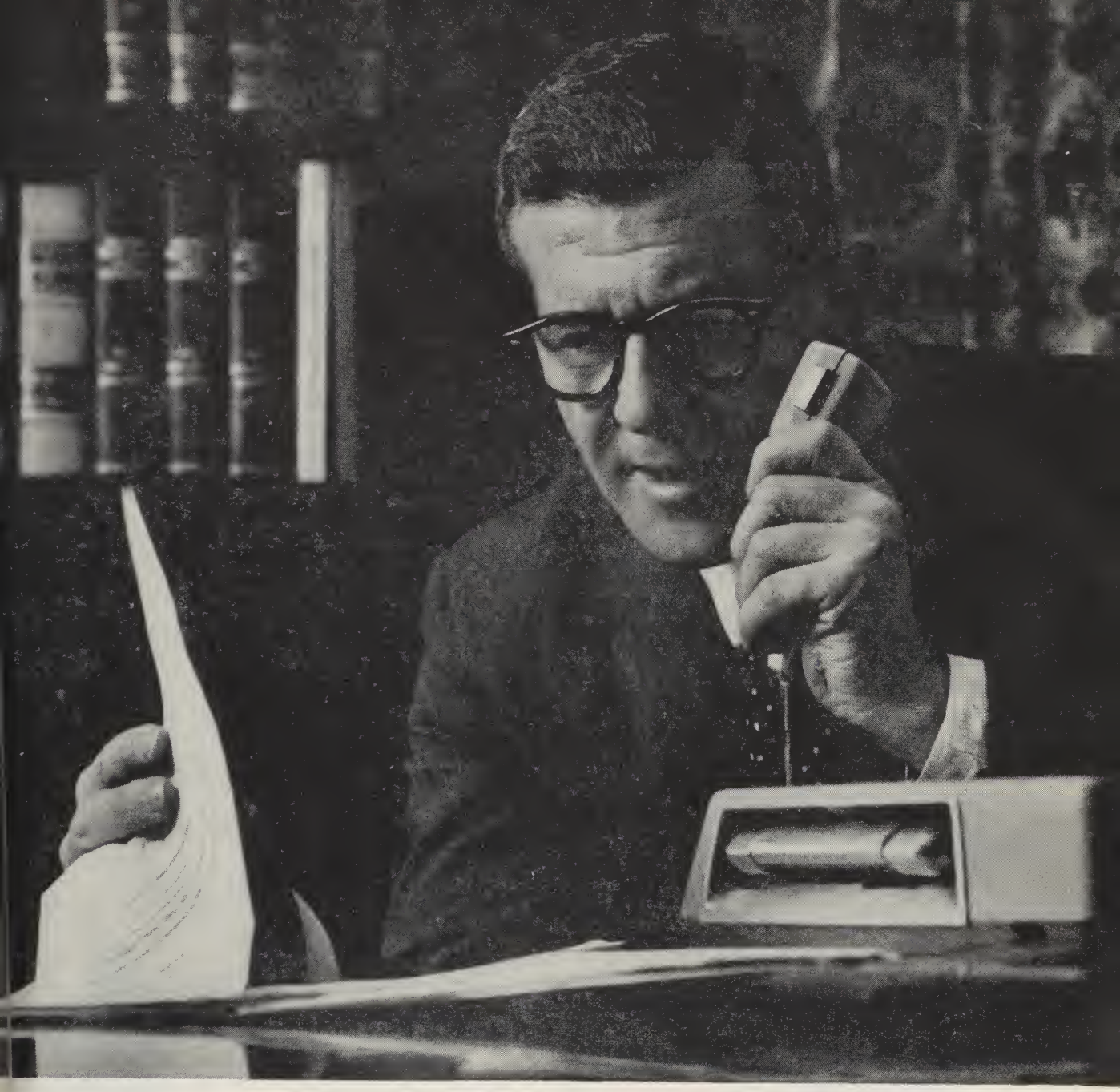
How Supplied: Isuprel Compound Elixir is supplied in bottles of 16 fl. oz.

Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.

New ISUPREL® compound ELIXIR

Winthrop LABORATORIES
New York 18, N.Y.

ISUPREL AND LUMINAL, TRADEMARKS REG. U. S. PAT. OFF.



'Feel any different now, Mr. S.?" "I thought nothing was appening, Doctor... but then my wife saw a change ..said I wasn't fighting all the time. People at he office seemed easier to work with." "How about rowsiness?" "No, not when I need to stay awake."

this could be your "anxiety patient" on

TREPIDONE®

MEPHENOXALONE LEDERLE

In the treatment of mild to moderate tension and anxiety, the normalizing effect of TREPIDONE leaves the patient emotionally stable, mentally alert. Adult dose: One 400 mg. tablet, four times daily. Supplied: Half-scored tablets, 400 mg., bottle of 50.

Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle

Control Constipation Without Interference

PRULET®



A MILD REFLEX ACTING LAXATIVE . . .

does not interfere with other conditions under treatment.

The active ingredient of Prulet,® Bis(p-acetoxyphenyl) -oxindole, is analogous to a substance found in prunes. Completely recoverable from the feces, it has no deleterious effect on the vital organs. It is completely free from side effects, such as coloring of the urine, hyperemia and flatulence. During lactation no portion of the active ingredient of Prulet® appears in the milk and it has no effect on the nursing infant.

PRULET®. . .

provides therapeutic effectiveness with milligram dosage.

EASY TO TAKE: Prulet® tablets are small, odorless, and tasteless.

SUPPLIED: Bottles of 60.

EACH TABLET CONTAINS:
Bis (p-acetoxyphenyl)-oxindole . . . 5 mg

DOSAGE: One or two tablets before retiring until regularity is achieved or as directed by a physician.

PRECAUTIONS: Presence of nausea, vomiting, abdominal pains, or other symptoms of appendicitis.

COMPLETE LITERATURE AND SAMPLES UPON REQUEST

Mission Pharmacal Co.
SAN ANTONIO 6, TEXAS

PR-61

State Physicians Invited To Washington State Meet

The physicians in Washington State are cordially extending an invitation to doctors throughout the country who plan to visit the Seattle World's Fair this September to coincide their trip with the 73rd Annual WSMA Meeting in Spokane, Sept. 16-19, 1962.

Three full days of scientific programs are scheduled with nationally-known guest scientific speakers, medical television, specialty sessions and general sessions included. For additional information on this outstanding state program and hotel reservations in Spokane and Seattle, contact the Washington State Medical Association, 1309 Seventh Avenue, Seattle.

The dates of the Seattle World's Fair are April 21 to Oct. 21, 1962, and information is available from the Washington State Medical Association on scientific meetings scheduled in the state during that time. For hotel reservations in Seattle during the Fair, contact Expo Lodging Service, Seattle World's Fair, Seattle 9, Wash.

END BATTERY REPLACEMENTS
Newest Welch Allyn

RECHARGEABLE HANDLE

Fits all WA medium-handle set cases



- Provides satisfactory illumination longer between charges than standard medium batteries.
- No separate charger.
- Cannot overcharge.
- May be recharged thousands of times.
- Will never corrode.
- Fits all WA instruments.

No. 717 Rechargeable battery handle $20.00
No 717-B Extra bottom section 14.50

Also available as part of combination sets.

KAY SURGICAL, Inc.
663 NORTH STATE STREET
JACKSON, MISS., FL 2-4043

INDEX TO ADVERTISERS

In accepting advertising for publication, the JOURNAL has exercised reasonable precaution to insure that only reputable, factual advertisements are included. Nevertheless, claims made by advertisers in behalf of goods, services, and medicinal preparations, apparatus or physical appliances are understood to be those of the advertiser. Neither sanction nor endorsement of such is warranted, stated, or implied by the association.

	Adv. page
American Tobacco Company	13
Ames Company	47
Amid Laboratories	19
Annual Session	22
Appalachian Hall	30
Blue Cross	17
Burroughs Wellcome	28
Ciba Products	24
Endo Laboratories	20
Fesler Company	7
First Federal of Jackson	before center
Florida Citrus Commission	32
Glenbrook Laboratories	23
Hill Crest Sanitarium	30
Kay Surgical	44
Lederle Laboratories	18, center, 35, 43
Eli Lilly	front cover, 26
P. Lorillard	9
Mission Pharmacal Company	44
Organon, Inc.	after center, 46
Parke-Davis and Company	2, 3
Pfizer Laboratories	38, 39, 40
Pharmaceutical Manufacturers	36
William P. Poythress	33
A. H. Robins	12
Roche Laboratories	back cover
Schering Corporation	25
G. D. Searle	27
Smith, Kline and French	31
E. R. Squibb	16
U. S. Brewers	21
U. S. Vitamin	10, 11
Upjohn Company	6, 7
Wallace Laboratories	15, 41
Winthrop Laboratories	4, 8, 14, 29, 37, 42

Articles for Publication

Manuscripts should be typewritten, double spaced on one side of the paper. Tables, charts, and tabulations should be submitted on separate sheets but their position in the text should be indicated. Authors are encouraged to limit bibliographies to 10 references, written in conformation to style utilized in scientific publications of the American Medical Association. Articles are accepted for publication on the condition that they have not been previously published and are contributed solely to this JOURNAL.

A thesis summary of 75 to 100 words must accompany each manuscript separately from the text. Figures and drawings are acceptable when prepared with black ink on white paper. Photographs for illustrations should be unmounted, untrimmed, glossy prints and all such material must be identified. No charges are made to authors for illustration engravings not exceeding four column inches per printed page.

Reprints may be obtained at cost from the association. The right is reserved to decline any manuscript for publication. Ordinarily, manuscripts submitted will be acknowledged whether published or not.

CLASSIFIED

ONE GE PORTABLE X-RAY MACHINE
Write Box 215, Pelahatchie, Miss.

WANTED GENERAL PRACTITIONER—To take over well-established practice (14 years) in growing Northeast Mississippi community. Abundant industry present. Town 2,500 with 17,000 supporting area. Combination office, diagnostic facilities, and one-half interest in hospital. Hospital operating on profitable basis. Home also available. Reason for change—want to move to Florida. Anticipate move June or July, 1963. Contact: Dr. D. W. Crockett, Box 68, Fulton, Mississippi.

ONEROUS ONCOLOGY

Nashville, Tenn., radio station WMAK telephoned Vanderbilt University's English department for comment on the suitability of the controversial novel, *Tropic of Cancer.*

"I haven't read the book," was the frosty reply. "Why don't you call the school of medicine?"

—Associated Press

ENDOCRINE AND PHARMACEUTICAL PRODUCTS OF QUALITY

Organon

An important announcement to physicians who prescribe corticosteroids

Organon's new technical process now makes one of the newer, most highly potent and well tolerated corticosteroids available at greatly reduced cost to your patients with allergic, arthritic or other inflammatory conditions.

This new product is being marketed under the trade name of HEXADROL, brand of dexamethasone 'Organon'. HEXADROL is now being offered to your pharmacist at a price which should make it available to your patients at a cost well within the price range of older generically prescribed corticosteroids. It is supplied as 0.75 mg. white scored tablets, in bottles of 100.

If you have been prescribing the older corticosteroids— such as prednisone, prednisolone, hydrocortisone or cortisone, and have hesitated to prescribe the newer corticosteroids because of economic consideration for your patients, you can now secure all of the clinical advantages of dexamethasone at approximately the same prescription expense. Mg. for mg., HEXADROL is approximately 6 times more potent than triamcinolone or methylprednisolone... 8 times more potent than prednisone or prednisolone... 28 times more potent than hydrocortisone... and 35 times more potent than cortisone.

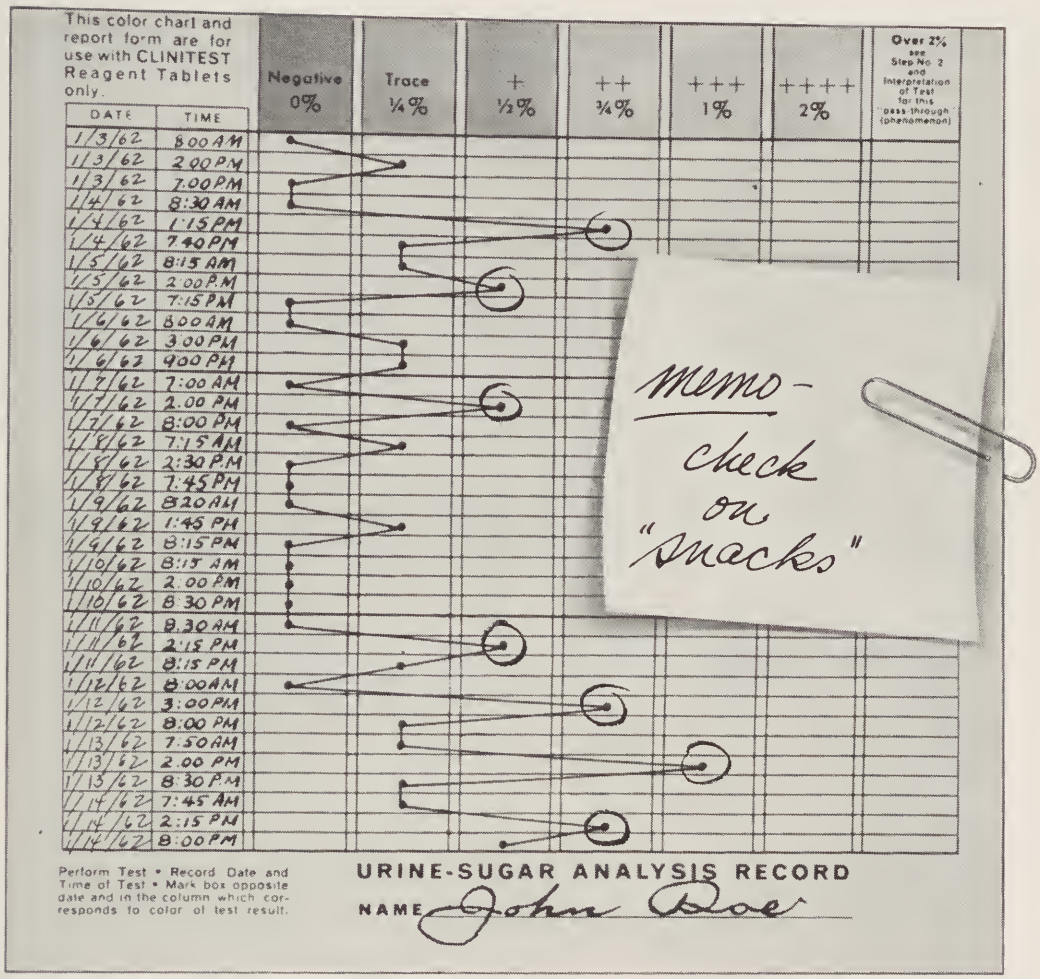
If you are now prescribing the newer corticosteroids— such as triamcinolone, betamethasone, paramethasone or another brand of dexamethasone, because of reduced risk of sodium and fluid retention, potassium depletion, or disturbance of glucose metabolism – you can obtain all of these benefits with HEXADROL, at marked savings – yet with complete assurance of unsurpassed quality and therapeutic effect.

For complete information concerning HEXADROL— including indications, dosage, precautions and side effects – or if you would like a trial supply, ask your Organon Representative, or write to: Director, Professional Services, Organon Inc., West Orange, N. J.

'Organon'—your professional assurance of quality
Hexadrol®—your patient's assurance of economy!

AN AMES CLINIQUICK®

CLINICAL BRIEFS FOR MODERN PRACTICE



in the regulation of diabetes...
GET THE FACTS YOUR PATIENT FORGETS

With graphic ANALYSIS RECORD—"Records of urine tests done at home are essential in the regulation of diabetes." Ricketts, H. T., and Wildberger, H. L.: *Diagnosis and Management of Diabetes Mellitus in General Office Practice,* M. Clin. North America *45*:1505, 1961.

color-calibrated
CLINITEST®
BRAND

Reagent Tablets

quantitative urine-sugar test—for patients whose diabetes is difficult to control, and in therapeutic trial of oral hypoglycemic agents.

Available: CLINITEST *Urine-Sugar Analysis Set* (36 Reagent Tablets)—compact, ready-to-test any time, any place. Set, refills of 36 bottled and 24 Sealed-in-Foil tablets contain *Analysis Record* forms. 19962

AMES
COMPANY, INC
Elkhart • Indiana
Toronto • Canada

LIBRARIAN
NAT LIBRARY OF MED
WASHINGTON 25 D C

ANXIETY, TENSION & THE LIBRIUM EFFECT

A patient treated with Librium feels different, even after a few doses. He appears different to his family and to his physician. Different, in the sense of a change from the previous state of anxiety and tension, and also freed from the sensations created by daytime sedatives or tranquilizers. That the striking difference in Librium was first observed in a series of ingenious animal experiments is mainly of theoretical interest. Of more practical importance, for example, is that Librium lacks any depressant effect—a fact which can assume overriding clinical importance. And this is but one of the ways in which the difference can be observed.

Librium deserves to be studied at first hand. Why not select twelve of your patients who show the emotional or somatic signs of anxiety, tension, or agitation, place six of them on Librium—and see the difference in effect for yourself.

THE SUCCESSOR T
THE TRANQUILIZ R

Consult literature and dosage info at available on request, before pre ib

LIBRIUM® Hydrochloride—7-chloro-2-methylam 5-phenyl-3H-1,4-benzodiazepine 4-oxide hydrochl e.

ROCHE
ROCHE LABORATORIES
Division of Hoffmann-La Roche Inc.
Nutley 10, New Jersey

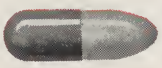
JOURNAL OF THE Mississippi STATE MEDICAL ASSOCIATION

JUNE 1962

INDEX MEDICUS



sign of infection?



symbol of therapy!

Ilosone® is available in three convenient forms: Pulvules®—125 and 250 mg.*; Oral Suspension—125 mg.* per 5-cc. teaspoonful; and Drops—5 mg.* per drop, with dropper calibrated at 25 and 50 mg.

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana. Ilosone® (erythromycin estolate, Lilly) *Base equivalent

Lilly

232633

Ilosone works to speed recovery

This Month . . . Omphalocele in the Newborn, External Otitis, Dysplasia and Carcinoma In Situ, Distinguished Service Oration

M.S.M.A



For peptic ulcer gastric hyperacidity and gastritis...

In year-long study on peptic-ulcer patients

New Creamalin®
Antacid Tablets

*"...faster in onset of action...and for a longer period"**

"Clinical studies in 85 patients with duodenal ulcer ...confirmed the superiority of the new preparation [new Creamalin] over standard aluminum hydroxide preparations, in that prompt relief was achieved and maintained throughout the period of observation."*

Patients were followed for about one year.

New Creamalin promotes ulcer healing, permits less frequent feedings because it is so long-acting. Heartburn and epigastric distress were "...easily and adequately controlled...."* New Creamalin has the therapeutic advantage of a liquid antacid with the convenience of a palatable tablet. *It does not cause constipation.*

Each new Creamalin tablet contains 320 mg. of specially processed highly reactive dried aluminum gel (stabilized with hexitol) with 75 mg. of magnesium hydroxide. Minute particles offer a vastly increased surface area.

Dosage: Gastric hyperacidity—from 2 to 4 tablets as needed. Peptic ulcer or gastritis—from 2 to 4 tablets every two to four hours. *How Supplied:* Bottles of 50, 100, 200 and 1000.

Now also available—New Creamalin Improved Formula Liquid. Pleasant mint flavor—creamy pink color. Stabilized reactive aluminum and magnesium hydroxide gel (1 teaspoon equals 1 tablet). Bottles of 8 and 16 fl. oz.

Creamalin, trademark reg. U.S. Pat. Off.

*Schwartz, I. R.:
Current Therap. Res. 3:29, Feb., 1961.

Winthrop LABORATORIES New York 18, N. Y.

Volume III
Number 6
June 1962



JOURNAL of the Mississippi
STATE MEDICAL ASSOCIATION

• EDITOR
WILLIAM M. DABNEY, M.D.

• ASSOCIATE EDITORS
DEWITT HAMRICK, M.D.
GEORGE H. MARTIN, M.D.

• MANAGING EDITOR
ROWLAND B. KENNEDY

• EDITORIAL ASSISTANT
BETTY M. SADLER

• PUBLICATIONS COMMITTEE
LAWRENCE W. LONG, M.D.
Chairman
B. B. O'MARA, M.D.
WILLIAM E. LOTTERHOS, M.D.
and the Editors

• THE ASSOCIATION
C. P. CRENSHAW, M.D.
President
JOHN G. ARCHER, M.D.
President-elect
C. G. SUTHERLAND, M.D.
Secretary-Treasurer
B. B. O'MARA, M.D.
Speaker
HOWARD A. NELSON, M.D.
Vice Speaker
ROWLAND B. KENNEDY
Executive Secretary
CHARLES L. MATHEWS
Assistant Executive Secretary

The JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION is owned and published by the Mississippi State Medical Association, founded 1856. Editorial, executive, and business offices, 735 Riverside Drive, Jackson, Mississippi; office of publication, 1201-5 Bluff Street, Fulton, Missouri. Subscription rate, $5 per annum; $1 per copy, as available. Advertising rates furnished on request. Second-class postage paid at the post office at Fulton, Missouri.

CONTENTS

ORIGINAL PAPERS

Omphalocele in the Newborn **237** ALBERT L. MEENA, M.D.

External Otitis **243** EDLEY H. JONES, M.D. and PATRICK G. MCLAIN

Management of Dysplasia and Carcinoma In Situ **249** F. T. MARASCALCO, M.D.

SPECIAL FEATURES

Radiologic Seminar II **258** ELMER J. HARRIS, M.D.

Clinicopathological Conference XXIX **260** University of Mississippi

Distinguished Service Oration **267** C. D. TAYLOR, JR., M.D.

EDITORIALS

Vagotomy, Anthrectomy, Billroth I Anastomosis **271** A More Physiologic Operation for Duodenal Ulcer

Bobby's Hobby—Nevermore **272** Needed—More Senators Williams

Tissue Committees: Legal Traps or Quality Aids? **272** Four Pertinent Points

THIS MONTH

The Literature **275** Books and Journals

Medical Organization **277** Annual Session news and pictures

Copyright 1962, Mississippi State Medical Association

CONSISTENTLY SUCCESSFUL IN RELIEVING DRY, ITCHY SKIN

Sardo® BATH OIL

STUDY 1 *Spoor, H. J.: N. Y. State J.M. 58:3292, 1958.*

satisfactory results in 88% of cases

comments: "In practically every instance... the patients experienced relief from dryness and pruritus."

STUDY 2 *Lubowe, I. I.: Western Med. 1:45, 1960.*

satisfactory results in 94% of cases

comments: Sardo "reduced inflammation, itching, irritation, and other discomfort..."

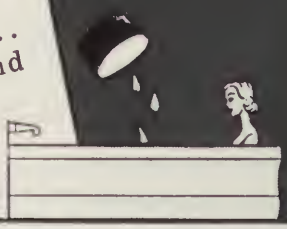
STUDY 3 *Weissberg, G.: Clin. Med. 7:1161, 1960.*

satisfactory results in 91% of cases

comments: "Scaling disappeared, and... the skin became softer and smoother..." with Sardo.

INDICATIONS

eczematoid dermatitis
atopic dermatitis
senile pruritus
contact dermatitis
nummular dermatitis
neurodermatitis
soap dermatitis
ichthyosis



SARDO IN THE BATH releases millions of microfine water-miscible globules* which act to (a) lubricate and soften skin, (b) replenish natural emollient oil, (c) prevent excessive evaporation of essential moisture.

Patients appreciate pleasant, convenient SARDO.
Non-sticky, non-sensitizing, economical. Bottles of 4, 8 and 16 oz.



for samples and literature, please write...

SARDEAU, INC. 75 East 55th Street, New York 22, N. Y. *Patent Pending, T.M. © 1961

New (2nd) Edition!

Green and Richmond Pediatric Diagnosis

A remarkably useful book for every physician who sees children in his daily practice. This *New (2nd) Edition* **gives you solid help in diagnosing the diseases of childhood.** The authors start with presenting symptoms and carefully lead you back to the possible cause or condition that helped produce the signs of disturbance. Those indications of trouble commonly exhibited by children are discussed at length—*pain, cyanosis, bleeding, cough, etc.* Every part of the body, every system is carefully considered—telling you what to look for, how to look for it, and the significance of your findings. A detailed section on interviewing techniques stresses the establishment of rapport with the patient. You'll find a wealth of new information in this thorough revision. There are entirely new chapters on *Dysphagia, Delirium, Chest Pain, Irritability, Vertigo, Fainting and Headache*—reflecting the diagnostic consideration given to both physical and psychological causes.

By Morris Green, M.D., Associate Professor of Pediatrics, Indiana University School of Medicine, Director, Kiwanis Diagnostic and Out-Patient Center, James Whitcomb Riley Hospital for Children; and Julius B. Richmond, M.D., Professor and Chairman, Department of Pediatrics, State University of New York College of Medicine, Syracuse. About 512 pages, 6½″ x 10″, illustrated. About $12.00.

New (2nd) Edition—Just Ready!

New - Just Ready!

Nealon - Fundamental Skills in Surgery

Here is a wealth of specific "how-to-do-it" information on essential procedures common to all major and minor surgery. Topics range from *how to remove sutures* to *how to perform the closed chest method of cardiac massage.* You'll find valuable help on: techniques of tying knots, wound dressing, anesthesia, types of suture materials and their use, general management of burns, instructions for operating room conduct, special pediatric surgery techniques, etc. Complications such as hemorrhage, shock, abdominal distension and wound disruption receive full attention. Dr. Nealon simply and clearly explains the general procedures which can be applied to handling injuries, infections and specific lesions of each body region. For example, he tells you how to repair flexor tendons by suture technique; how to insert an endotracheal tube; what to do for varicose ulcers; how to perform a sternal bone marrow biopsy; how to handle a breast abscess. Crystal-clear illustrations vividly picture each procedure. Every physician who is ever called upon to perform either major or minor surgery will welcome this handy guide.

By Thomas F. Nealon, Jr., M.D., Associate Professor of Surgery, Jefferson Medical College. About 295 pages, 6½″ x 9¾″, with about 289 illustrations. About $8.50.

New—Just Ready!

Saunders Books

Just Ready!

The 1961-1962 Mayo Clinic Volumes

No matter what your specialty or field of interest, these authoritative volumes have many articles of practical value to you. Here you will find the latest developments, treatments, surgical techniques and diagnostic methods from the Mayo Clinic's investigations over the past year.

This year, for the first time, all articles pertaining to surgery will appear in one volume and those on medicine in another—171 articles in all. These volumes are available separately or in a slip-cased set. Here is only a small sample of the type of coverage you'll find . . .

. . . in the "Medicine" Volume. Proctoscopic Clues in Diagnosis of Regional Enteritis—Evacuation of Gas Bubbles from Bladder—Diagnosis of Primary Hyperparathyroidism—Vascular Diseases of the Leg in the Aged—Neurodermatitis —Photosensitivity—Corneal Contact Lenses and Ocular Disease—Collapse After Tracheotomy.

. . . in the "Surgery" Volume. Superficial Carcinoma of the Stomach—Wound Dehiscence and Incisional Hernia in Gynecologic Cases—Open Intracardiac Repair for Transposition of the Great Vessels—Fractures About the Elbow in Children—Surgical Management of Bilateral Malignant Lesions of the Lung—Radiotherapy of Ewing's Sarcoma—Anesthesia for the Delivery of the Diabetic Patient—Psychologic Management of the Patient with Carcinoma.

Collected Papers of the Mayo Clinic and Mayo Foundation. Vol. 53. By the Staff of the Mayo Clinic, Rochester, Minnesota, and the Mayo Foundation, University of Minnesota. **"Medicine" Volume,** about 620 pages, 6″ x 9″, illustrated, about $10.00. **"Surgery" Volume,** about 490 pages, 6″ x 9″, illustrated, about $10.00. **Slip-cased set,** about $20.00.

Just Ready!

To Order Mail Coupon Below!

W. B. SAUNDERS COMPANY
West Washington Square Philadelphia 5

Please send when ready and bill me:

- ☐ Green & Richmond's Pediatric Diagnosis, about $12.00
- ☐ Nealon's Fundamental Skills in Surgery, about $8.50
- ☐ 1961-1962 Mayo Clinic Volumes
  - ☐ Medicine, about $10.00
  - ☐ Surgery, about $10.00
  - ☐ Slip-cased set, about $20.00

Name.....

Address.....

.....SJG 6-62



Put your low-back patient back on the payroll

Soma relieves stiffness —stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, fast!

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

> Kestler reports in controlled study: *Average time for restoring patients to full activity: with Soma, 11.5 days; without Soma, 41 days.* (*J.A.M.A. Vol. 172, No. 18, April 30, 1960.*)

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. **USUAL DOSAGE: 1 TABLET Q.I.D.**

The muscle relaxant with an independent pain-relieving action

SOMA®

(carisoprodol, Wallace)

Wallace Laboratories, Cranbury, New Jersey



when occupational allergies strike

CONTINUOUS 10-12 HOUR ACTION

Dimetane® Extentabs®

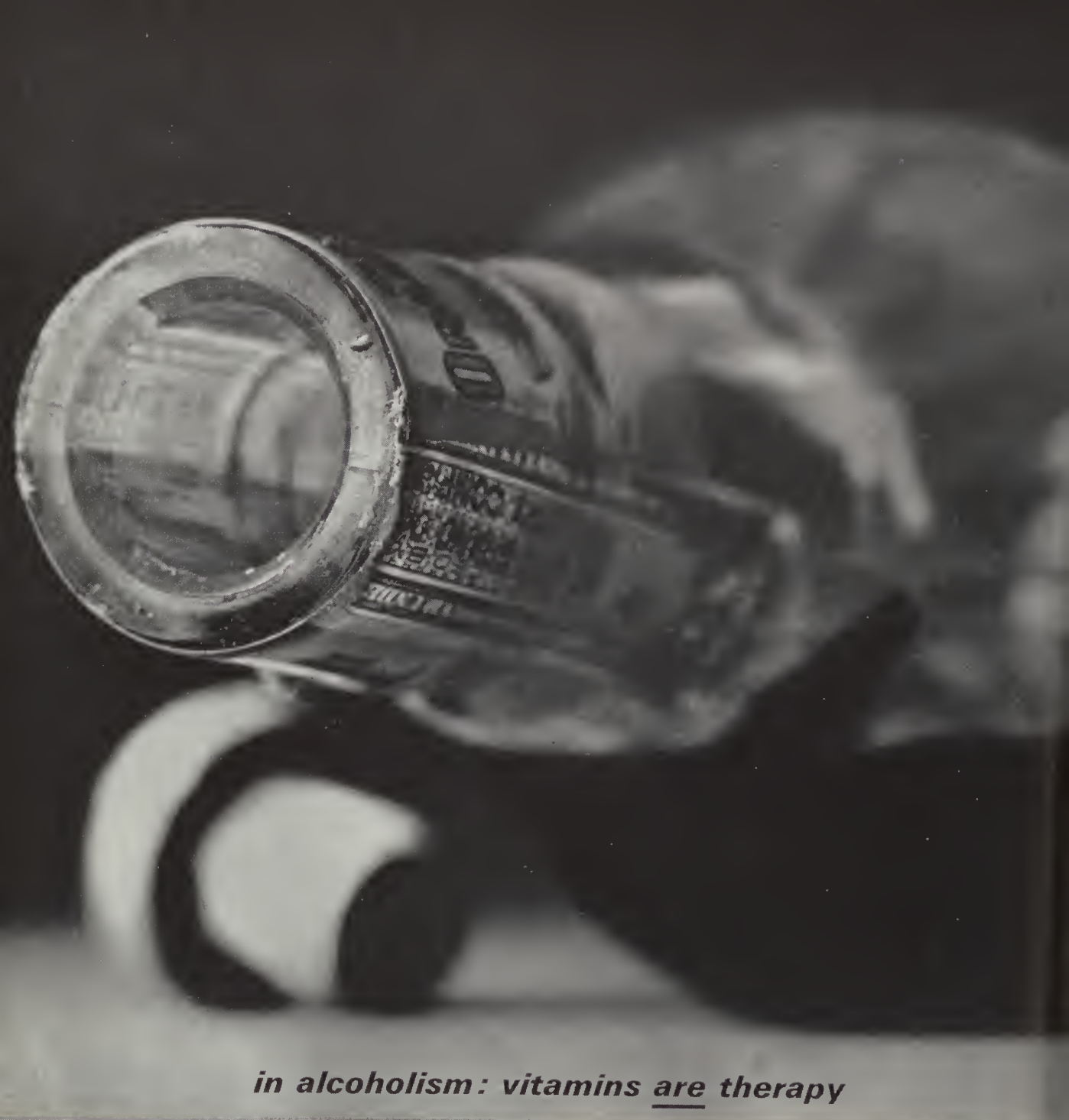
parabromdylamine (brompheniramine) maleate 12 mg.

reliably relieve the symptoms...seldom affect alertness

Beauticians (and their customers) may develop allergies to henna, dyes and oils... housewives to dust and soap... farmers to pollens and molds. Most types of allergies — occupational, seasonal or occasional reactions to foods and drugs — respond to Dimetane. With Dimetane most patients become symptom free *and* stay alert, and on the job, for Dimetane works... with a very low incidence of significant side effects. Also available in conventional tablets, 4 mg.; Elixir, 2 mg./5 cc.; Injectable, 10 mg./cc. or 100 mg./cc.

A. H. ROBINS CO., INC., RICHMOND 20, VIRGINIA

MAKING TODAY'S MEDICINES WITH INTEGRITY...
SEEKING TOMORROW'S WITH PERSISTENCE



in alcoholism: vitamins are therapy

A full "comeback" for the alcoholic is partly dependent on nutritional balance...aided by therapeutic allowances of B and C vitamins. Typically, the alcoholic patient is seriously undernourished...from long-standing dietary inadequacy, from depletion of basic reserves of water-soluble vitamins. Supplied in decorative "reminder" jars of 30 and 100.

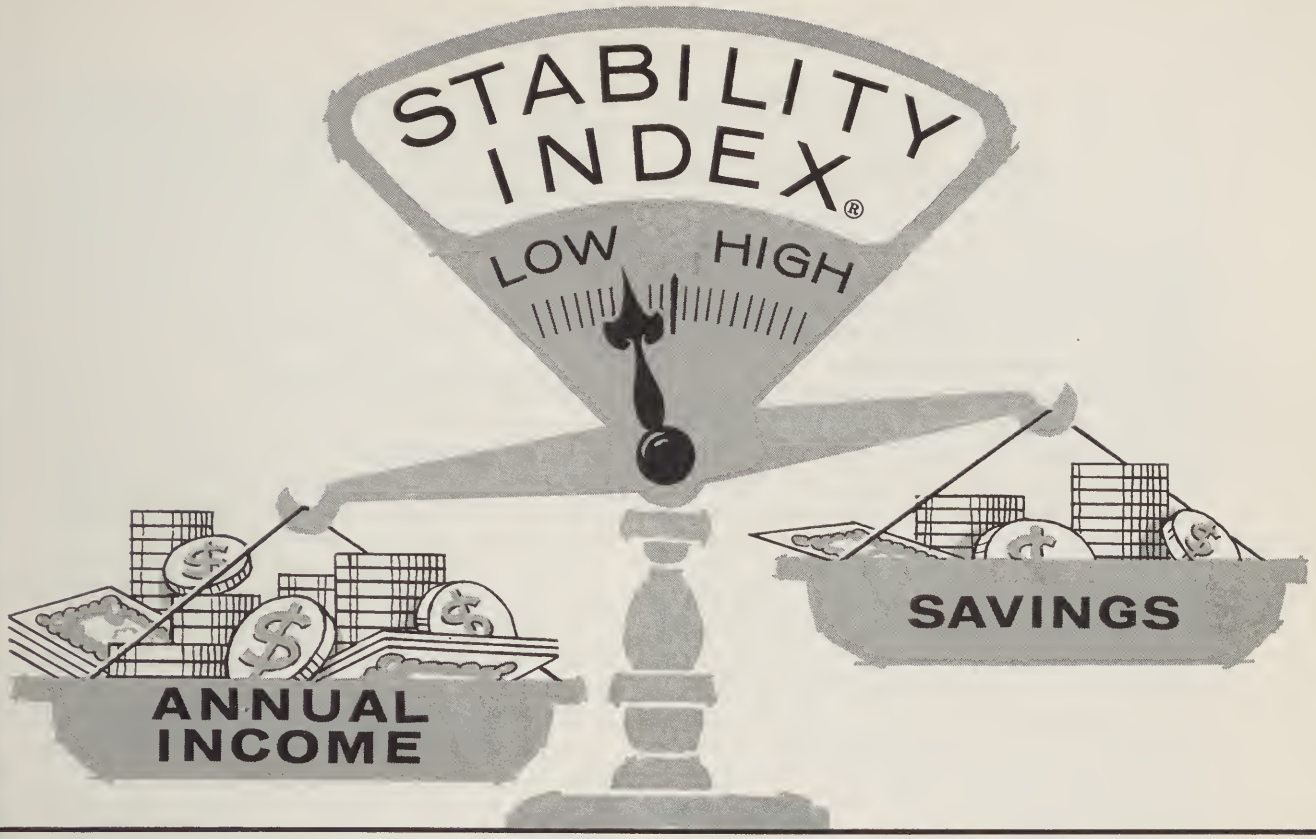
Each capsule contains:	
Vitamin B_1 (Thiamine Mononitrate)	10 mg.
Vitamin B_2 (Riboflavin)	10 mg.
Niacinamide	100 mg.
Vitamin C (Ascorbic Acid)	300 mg.
Vitamin B_6 (Pyridoxine HCl)	2 mg.
Vitamin B_{12} Crystalline	4 mcgm.
Calcium Pantothenate	20 mg.

Recommended intake: Adults, 1 capsule daily, or as directed by physician, for the treatment of vitamin deficiencies.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

STRESSCAPS®

Stress Formula Vitamins Lederle



How does your STABILITY INDEX® balance up today?

Savings equal to at least one year's income—that's the Stability Index formula which thousands of First Federal's savers follow as they add regularly to their savings accounts. They've set a goal for themselves—and the habit of regular saving each payday is the way they'll reach that goal . . . **Regular saving**—$5 a week, $10 a month, or whatever amount you choose—has the security of a wise investment as you improve your Stability Index . . . **Perhaps you want** a new boat for fun and fishing on the Reservoir a few years from now. Perhaps it's a new car, or a new house, or an exciting vacation you want instead. Or maybe you're thinking ahead to the time when you'll have expenses of a college education or the need for retirement security.

Whatever your purpose, a First Federal savings account will help you reach your goal. Accounts are insured by a permanent agency of the Federal government . . . your savings are readily available for withdrawal . . . and the experience of First Federal's directors and staff assures sound, conservative management of your money. Visit us soon, or open your account by mail (P. O. Box 1818) and start building your Stability Index to a high level of financial security.



FIRST FEDERAL SAVINGS

AND LOAN ASSOCIATION

WESTLAND BRANCH at ROBINSON ROAD | **MAIN OFFICE: CAPITAL AT STATE ST.** | MEADOWBROOK BRANCH at NO. STATE STREET

JACKSON, MISSISSIPPI

Coverages Continue When Workers Retire

Seven out of every ten employees covered under group health insurance policies issued by insurance companies during 1961 have the right to retain their protection when they retire, according to the Health Insurance Institute.

The Institute said its findings showed that there was a continuing trend in group health insurance policies toward coverages which employees can carry into their retirement years.

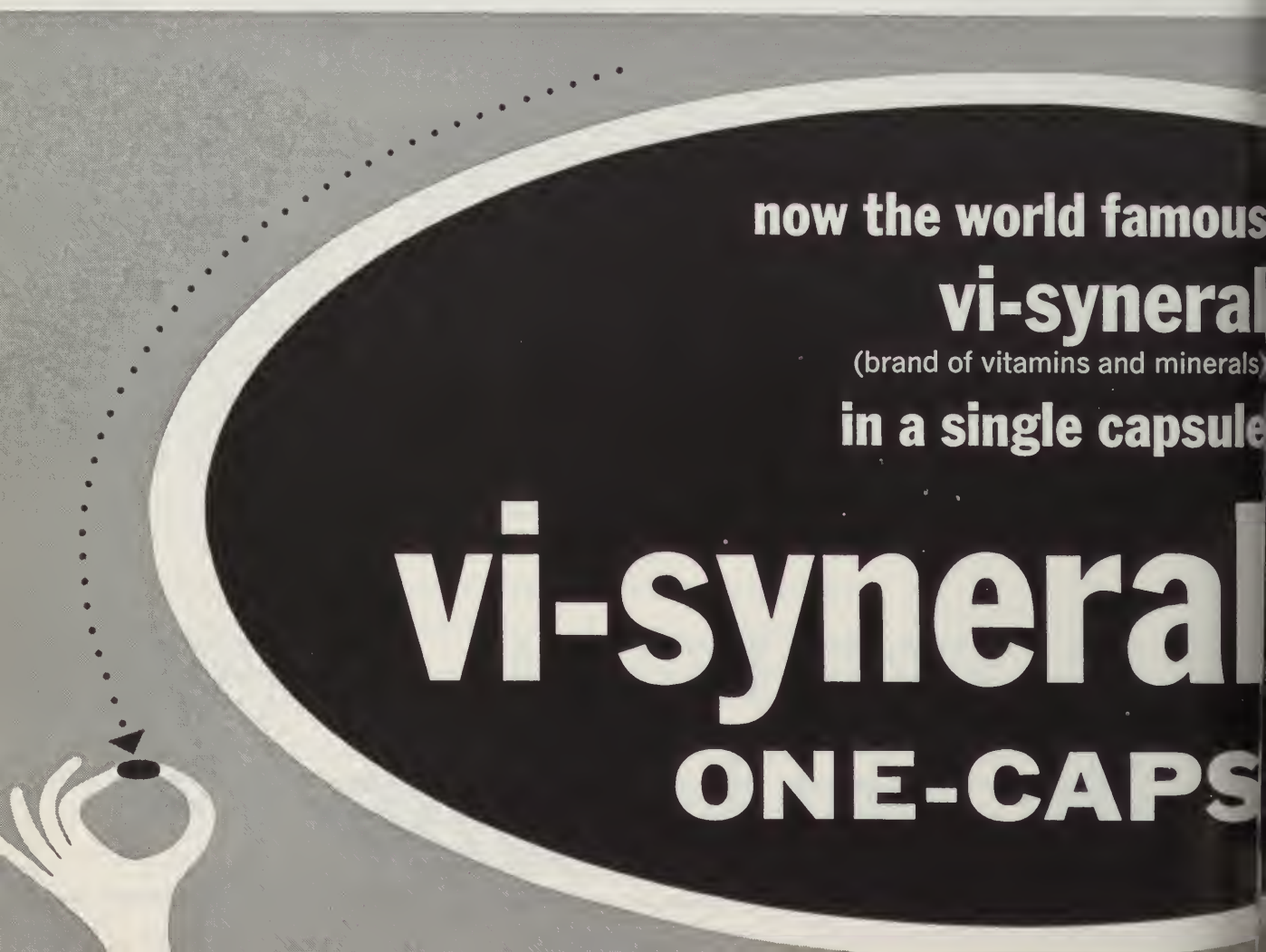
The Institute report was based on its second annual analysis of data supplied by insurance companies which were responsible for 74 per cent of the total group health insurance premiums in the United States in 1960. The data sampling consisted of some 2,300 new group coverages issued last year protecting 295,474 employees.

The retention of the worker's health insurance coverage after retirement is achieved in two ways: by converting his group benefits to an individual policy upon retiring or by continuing the benefits on a group basis.

Of the employees protected by new group coverages last year, some 187,331, or 63.4 per cent of the total, have the right to convert to an individual policy upon retirement. An additional 50,646 employees, or 17.1 per cent of the total, have the right to continue their medical care benefits on a group basis when they retire. Some have a choice of either. Eliminating this duplication factor, a total of 68.4 per cent of the employees can retain their coverage when they retire.

A small but continuing trend in this type of retirement provision is shown by comparing this data with findings of past years. In 1960 the Institute data sampling consisted of some 2,100 new group medical care coverages protecting 276,886 employees. A total of 67.6 per cent of these employees had the right, upon retirement, of either converting to an individual health insurance policy or of continuing benefits on a group basis.

In addition, a 1959 study of group hospital expense plans disclosed that 55 per cent of employees and dependents had the right either to continue or convert their health coverage upon retirement. And a 1956 study by the New York State Department of Insurance showed some 45 per cent of those covered by group insurance at that time had the right to retain their health coverage when retiring.



The Institute said its most recent study was of groups ranging in size from less than 25 employees to more than 500, and noted that the conversion right was more common among the less-than-25 groups, while the continuation right was more common among the more-than-500 groups.

Land, Sea, Or Air? Health Plans Protect

When men take off on regularly scheduled trips to the moon some years hence, the odds are good that they will be covered by health insurance policies similar to those which now protect stock car racers, rodeo cowboys—and summer campers.

The Health Insurance Institute reports that this form of health insurance, called "special risk insurance," protects scientists, engineers and other specialists working for the nation on projects ranging from the ocean depths to the upper reaches of the atmosphere.

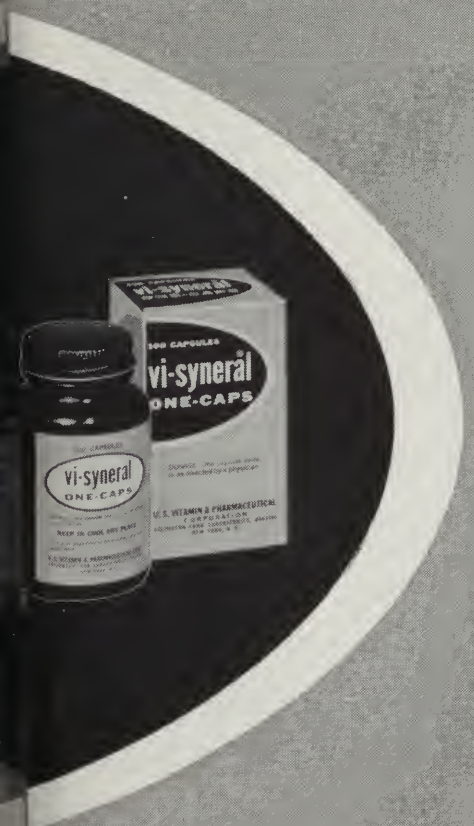
Special risk policies have been issued for the technicians who ride nuclear submarines hundreds of feet beneath the sea during trial runs, and for the intrepid test pilots who fly experimental planes tens of thousands of feet above the surface of the earth.

In more down-to-earth coverages, these policies also are written to protect racing drivers; amateur, semi-professional and professional athletic teams; camping groups; hunters and fishermen; rodeo contestants; schools and students; loggers; motorcycle drivers; Boy Scouts; the vamps of volunteer fire departments; and many others.

Written on a group basis or just for a single person, special risk insurance supplies coverage for hazards of an unusual nature to which the coverage provided by regular health insurance is not appropriate. This form of insurance is a rapidly growing part of the health insurance field.

For a weekend hunting jaunt, a typical policy would provide $1,000 toward medical bills resulting from an accident and a $10,000 death benefit for a $2 premium, and for a 31-day period it would cost about $10. A policy paying up to $5,000 for medical bills and a $50,000 death benefit would cost $10 for three-day coverage, and about $50 for 31 days.

Each year an estimated 12 million persons purchase hunting licenses, and each year about 2,000 men die from accidents involving firearms. Nonfatal gun wounds are even more common.



TO HELP KEEP RECOMMENDATION OF DIETARY SUPPLEMENTS WHERE IT BELONGS, WITH THE PHYSICIAN

VI-SYNERAL ONE-CAPS offers a high quality product at an especially low price.

• one capsule-a-day dosage • costs your patient less than 3¢ per day

• small, easy to take • ethically promoted, sold through the pharmacy

Each VI-SYNERAL ONE-CAPS capsule provides:

VITAMIN A	6,000 U.S.P. Units	DICALCIUM PHOSPHATE	170 mg.
VITAMIN D	600 U.S.P. Units	(Calcium	50 mg.)
ASCORBIC ACID (C)	75 mg.	(Phosphorus	39 mg.)
THIAMINE MONONITRATE (B_1)	3 mg.	FERROUS SULFATE EXSICCATED	50 mg.
RIBOFLAVIN (B_2)	3 mg.	(Iron	15 mg.)
PYRIDOXINE HCl (B_6)	1 mg.	COPPER	1 mg.
NIACINAMIDE	20 mg.	IODINE	0.1 mg.
VITAMIN B_{12}	3 mcg.	MANGANESE	1 mg.
d, CALCIUM PANTOTHENATE	5 mg.	MAGNESIUM	1 mg.
VITAMIN E (d, alpha tocopheryl acetate)	1 Int. Unit	ZINC	1 mg.

Bottles of 28 and 100 capsules.

u. s. vitamin & pharmaceutical corporation

Arlington-Funk Laboratories, division • New York 17, N. Y.



SUCCESSFUL FAMILY PLANNING...BASED ON YOUR COUNSEL AND LANESTA® GEL

As a physician, you play an essential role in the happiness and well-being of the family. At all times—when the young couple is first married, as the children arrive, and even after the family is complete — your counsel, including your recommendations for the use of Lanesta Gel, is of major importance.

Lanesta Gel, with or without a diaphragm, is a most effective means of conception control. Lanesta Gel effects speedier spermicidal action because it diffuses rapidly into the seminal clot. In fact, *the mean diffusion spermicidal time of Lanesta Gel is three to seven times faster than the mean diffusion times of ten leading, commercially available contraceptive creams, gels, or jellies*, according to Gamble ("Spermicidal Times of Commercial Contraceptive Materials — 1959").*

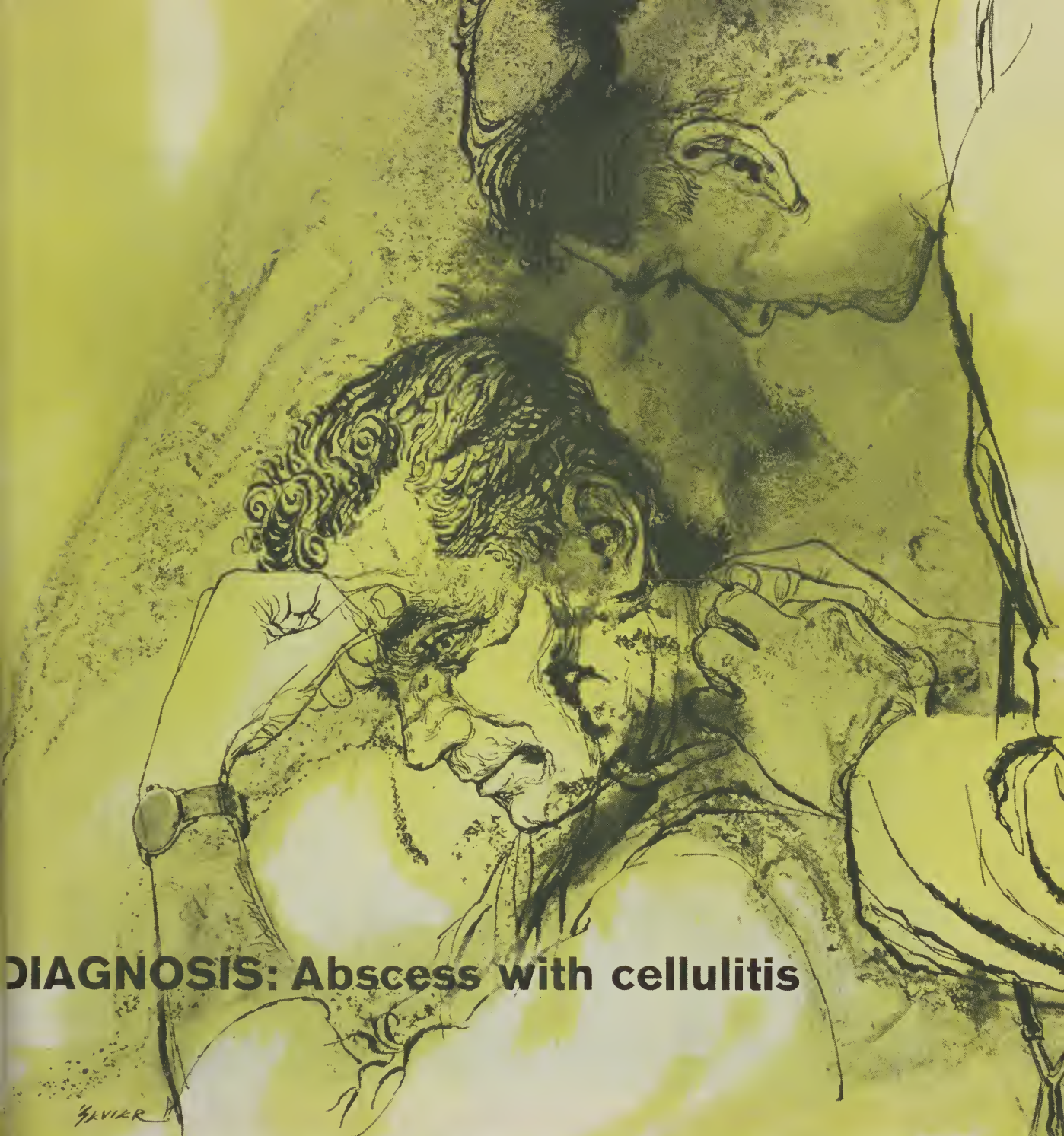
Lanesta Gel has complete esthetic acceptance and is well tolerated.

*Gamble, C. J.: Am. Pract. & Digest Treat. *11*:852 (Oct.) 1960. See also Berberian, D. A., and Slighter, R. G.: J.A.M.A. *168*:2257 (Dec. 27) 1958; Olson, H. J.; Wolf, L.; Behne, D.; Ungerleider, J., and Tyler, E. T.: California Med. *94*:292 (May) 1961; Kaufman, S.A.: Obst. & Gynec. *15*:401 (Mar.) 1960; Warner, M.P.:J.Am. M. Women's A. *14*:412 (May) 1959.

A PRODUCT OF LANTEEN® RESEARCH BREON
Supplied by Esta Medical Laboratories, Inc., Alliance, Ohio

Distributed by
BREON LABORATORIES INC., New York 18, N. Y.





DIAGNOSIS: Abscess with cellulitis

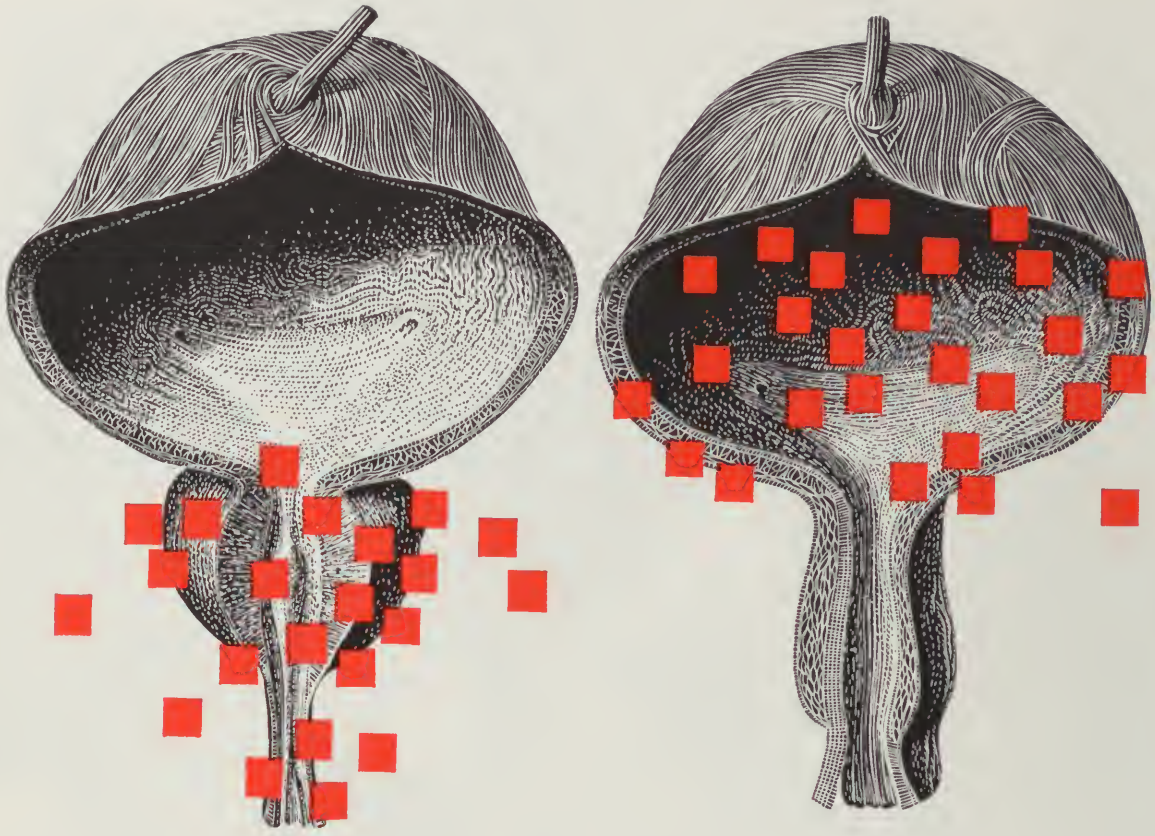
THERAPEUTIC NEED: Suppression of the causative organ-
sms and drainage.

ANTIBIOTIC: DECLOMYCIN®
Demethylchlortetracycline Lederle

because it has been proved clinically effective in abscess
and other soft-tissue infections.

uest complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

EDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York Lederle



Serenium

Squibb Ethoxazene (Diamino-Ethoxy-Azobenzene Hydrochloride)

Quickly eliminates pain and burning in the lower urinary tract

At real savings to your patients

Serenium provides **quick, localized analgesic action** in acute and chronic urinary tract infections with **only 1 tablet** t.i.d. Your patient is assured of the prompt action of Serenium by the harmless orange-red color of the urine; and he will feel good about the **low prescription cost,** too.

Supply: Bottles of 50 and 500 chocolate-covered tablets. Each tablet contains 0.1 Gm. of Squibb Ethoxazene. For full information see your Squibb Product Reference or Product Brief.

Serenium® is a Squibb trademark

SQUIBB *Squibb Quality—the Priceless Ingredient*

SQUIBB DIVISION Olin



Kent's development of the "Micronite" filter revolutionized the cigarette industry. Shortly after introduction of Kent with its famous filter, the swing to filter cigarettes got started in earnest. And no wonder. Kent with the "Micronite" filter refines away harsh flavor, refines away hot taste, makes the taste of a cigarette mild and kind.

Yes, Kent is kind-tasting to your taste buds, kind-tasting to your throat. Your taste buds become clear and alive with Kent.

• • •

Your taste buds will tell you why you'll feel better about smoking with the taste of Kent.

A PRODUCT OF P. LORILLARD COMPANY · FIRST WITH THE FINEST CIGARETTES · THROUGH LORILLARD RESEARCH

© 1961 P. LORILLARD CO.

skeletal muscle spasm is

tractable

with *Trancopal*®

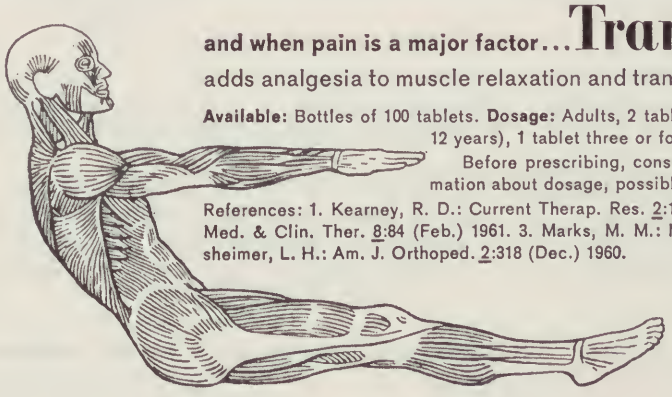
brand of chlormezanone

Low back pain and other skeletal muscle spasms are tractable disorders when you treat them with Trancopal, the relaxant that quickly eases the spasm and gets the muscle moving. You have a more tractable patient with Trancopal, too —its mild tranquilizing action makes him less irritable, better able to bear his discomfort, more willing to cooperate in physiotherapy.

These two complementary actions of Trancopal are commented on in many recent reports; e.g., Kearney[1] states: "...Trancopal has proven to be an extremely effective striated muscle relaxant and subcortical tranquilizer." Cornbleet,[2] discussing the use of Trancopal in dermatologic practice, comments: "Noteworthy was the soothing effect of chlormezanone without interference with normal activities or alertness... Patients were found more tractable and easier to control."

Marks[3] found that in patients with backache "...Trancopal offered considerable relief by alleviating both apprehension as well as musculoskeletal discomfort." Hergesheimer[4] comments: "...Trancopal acts to reduce the initial painful spasm and to allay anxiety, resulting in a cooperative patient whose subsequent recovery and return to work is accomplished more quickly."

Available: 200 mg. Caplets® (green colored, scored), 100 mg. Caplets (peach colored, scored), each in bottles of 100. **Dosage:** Adults, 200 mg. three or four times daily; children (5 to 12 years), from 50 to 100 mg. three or four times daily.



and when pain is a major factor... ***Trancoprin***® ASPIRIN (5 GRAINS) 300 MG. TRANCOPAL ..... 50 MG.

adds analgesia to muscle relaxation and tranquilization

Available: Bottles of 100 tablets. **Dosage:** Adults, 2 tablets three or four times daily; children (5 to 12 years), 1 tablet three or four times daily.

Before prescribing, consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.

References: 1. Kearney, R. D.: Current Therap. Res. 2:127 (April) 1960. 2. Cornbleet, T.: Antibiotic Med. & Clin. Ther. 8:84 (Feb.) 1961. 3. Marks, M. M.: Missouri Med. 58:1037 (Oct.) 1961. 4. Hergesheimer, L. H.: Am. J. Orthoped. 2:318 (Dec.) 1960.

Winthrop LABORATORIES
New York 18, N.Y.

1696M

NEWSLETTER

MISSISSIPPI STATE MEDICAL ASSOCIATION
JACKSON, MISSISSIPPI

June 1962

Dear Doctor:

Mississippi will soon have a phenylketonuria detection program, sponsored by private physicians and hospitals. House of Delegates at 94th Annual Session asked organization and implementation of PKU testing for all newborn between ages of four and six weeks.

> Positive urine tests for the hereditary metabolic disease will be reportable to State Board of Health. Incidence is about one in 25,000 births but disease, which almost always produces brain damage and retardation, is now considered treatable.

Doctors with a yen to dine atop the Seattle World's Fair space needle and see science wonders can also catch a first class medical meeting. Washington State Medical Association will conduct its 73rd Annual Session September 16-19 and extends hearty welcome to visiting M.D.'s.

Florida's fiery Claude Pepper, the New Deal's top socializer, made a smashing comeback in the sunshine state's recent Democratic primaries. Defeated in the 50's largely by physicians, Pepper campaigned on King-Anderson issue - yes, he's for it - as New Frontier swept House seats. Population growth gave state four new congressmen.

Most chagrined registrant at Pennsylvania Medical Society's recent conference on athletic injuries was Penn State coach "Rip" Engle. The famed mentor, a program participant, arrived with - of all things - an athletic injury, a ruptured Achilles tendon! Understanding physicians spoke on sports injury prevention and autographed the Engle cast.

Now it's "instant doctors," what with Johns Hopkins new super-accelerated medical curriculum. The Baltimore institution offers a special program of five 40-week years to selected students who have as little as two years premed. When B.A. requirements are fulfilled, students are admitted automatically to medical school. Advocates say program provides a "continuous education experience" without break between college and medical school.

Sincerely,

Rowland B. Kennedy
Executive Secretary

DATELINE - MEDICAL AMERICA

Harvard Psychologists Hassle Over 'Goof' Drug Tests

Cambridge - Studies of effects of psilocybin, a consciousness-expanding drug, by Harvard's department of psychology have stirred a tempest in the staid halls of learning. Charges were made that the studies were "run nonchalantly and irresponsibly," that subjects are not under medical supervision, and that participants have formed an "insider" sect, viewing non-participants as "squares." Experiments are held in subjects' homes with all present under influence of drug, the Harvard Crimson said.

AMA Charts Church-Clergy Liaison Program

Chicago - AMA's new Department of Medicine and Religion, headed by a Presbyterian minister, will initiate a pilot program in nine states to increase communication between physicians and clergymen. Work will be aided by a 20 member advisory committee of physicians and ministers chaired by Dr. Milford O. Rouse, Dallas. Program will be tried in Arizona, Georgia, Iowa, Maryland, Montana, New York, Ohio, Texas, and Utah.

MSMA Adopts Guides For Hepatitis Prophylaxis

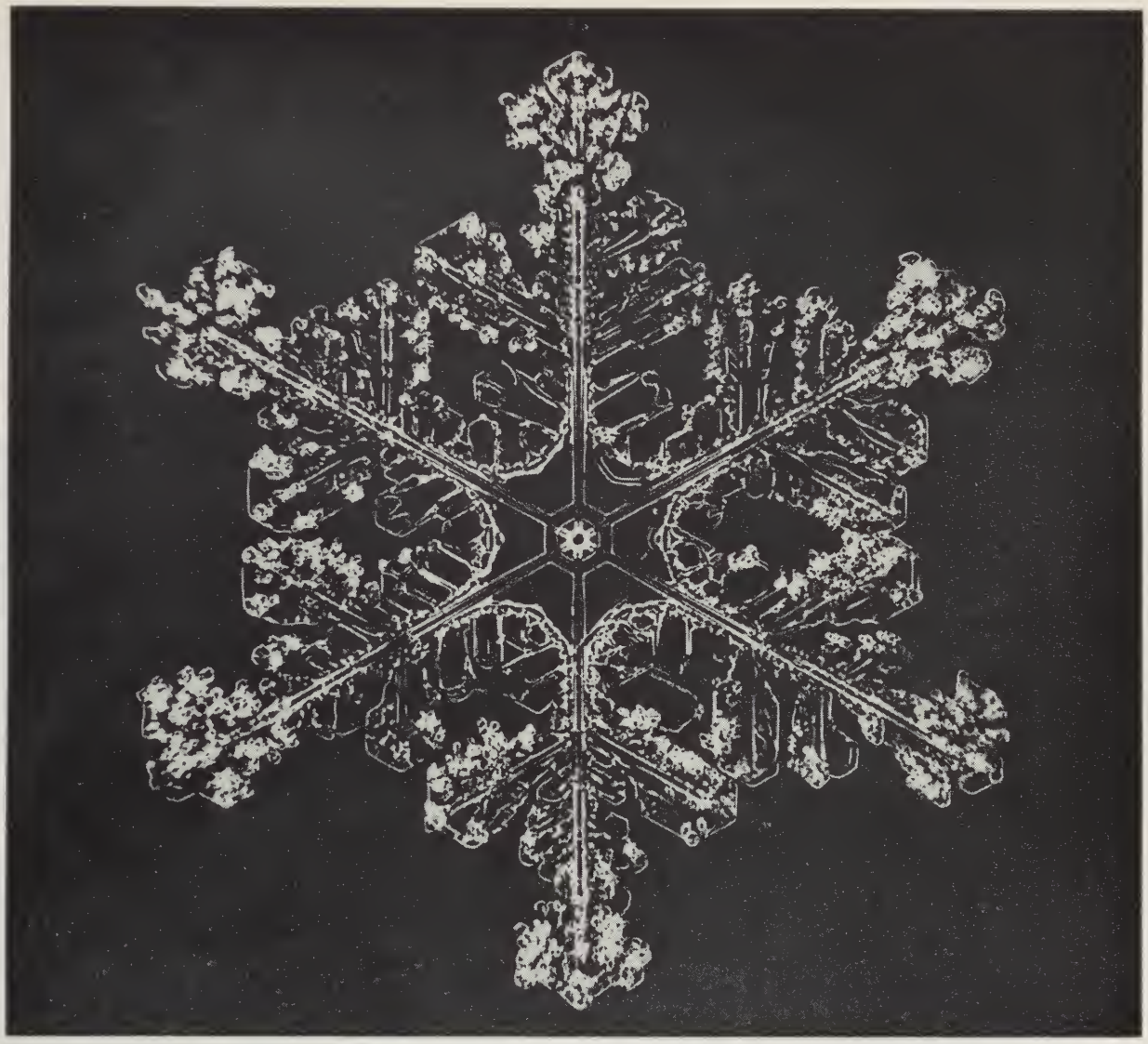
Jackson - Suggested guides for use of gamma globulin as a prophylaxis with respect to hepatitis were adopted by House of Delegates at recent 94th Annual Session. The scientific document, soon to be published in Journal MSMA, suggests that "the rationale remains to be established for a departure from the long-established practice of the Mississippi State Board of Health in recommending a dosage range of 0.005 ml/lb to 0.02 ml/lb body weight and a distribution plan based on 0.01 ml/lb body weight, (with a maximum allowance of 2 ml/pt where weight exceeds 200 pounds) for all household contacts of infectious hepatitis."

Army Says 'No' To Fat Diet Reduction

Washington - The troops will still get their po'k chops and butter, so say high Army quartermaster and medical officials. Decision to keep service diet as is came after pressure was put on to reduce fat content, said to relate to high incidence of coronary artery disease. Initial move originated with two medical officers who presented paper at military surgeons meeting last year.

England Plans To Abolish Large Mental Institutions

New York - Within 10 years, Great Britain hopes to deactivate all large mental hospitals, moving patients to general care institutions. Idea behind move is to teach public to regard mental illness as any other and to raise level of care for mental patients. Projected program is expected to cost 500 million pounds in new construction.



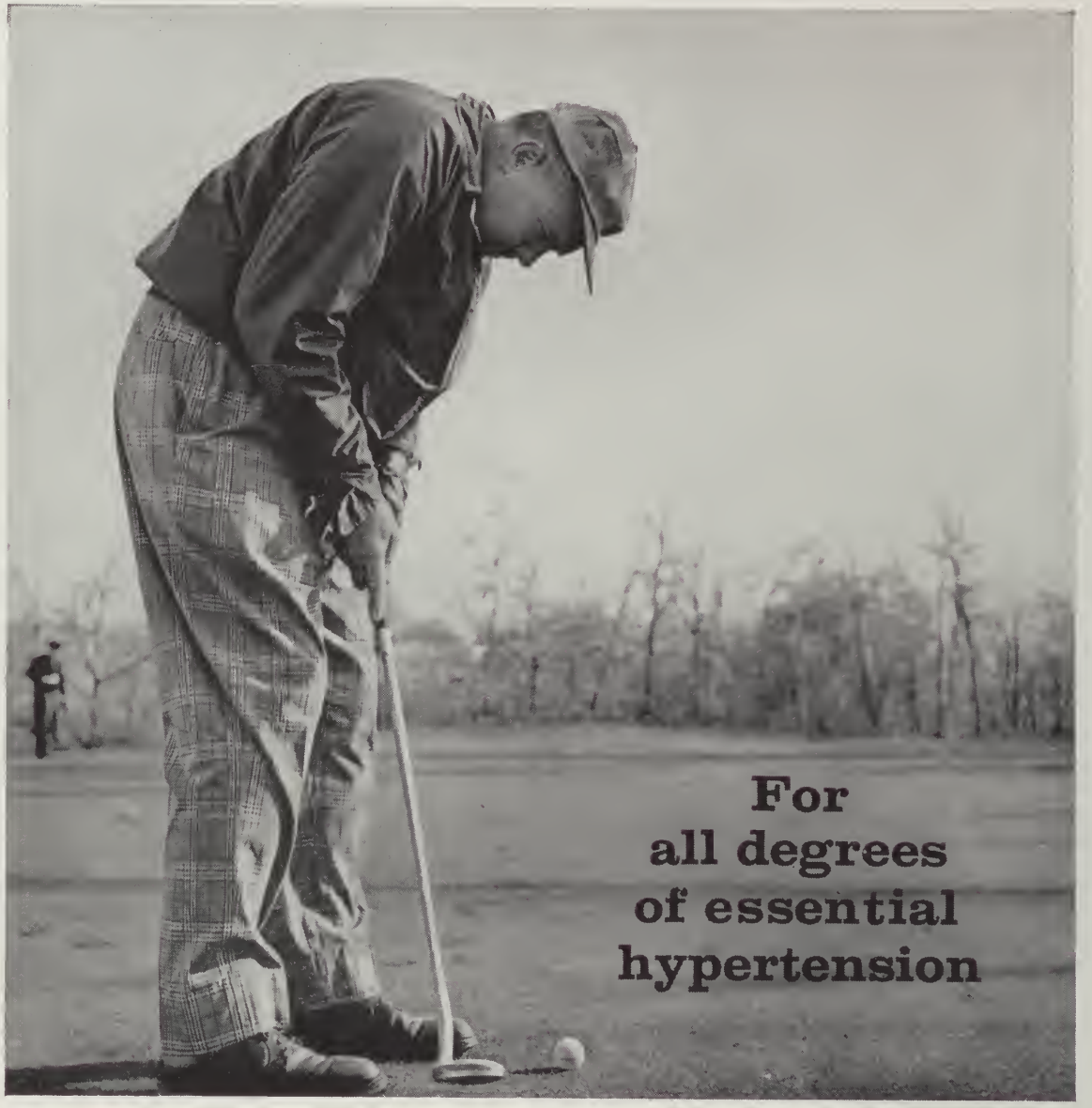
INDIVIDUALITY

In a world where many things seem similar, the perceptive eye sees fundamental differences.

There is only one Blue Cross-Blue Shield. It is the preferred Plan of hospitals and doctors for prepaying medical costs. One of Mississippi Blue Cross-Blue Shield's most important and unique features is the fact that its **service benefits** are flexible. For example, Blue Cross benefits **are based on the actual care individuals receive in the hospital, rather than on a fixed dollar allowance.** There **is** a difference — no other plan can match the priceless protection provided by Mississippi Blue Cross-Blue Shield.

MISSISSIPPI
BLUE CROSS
BLUE SHIELD

MISSISSIPPI HOSPITAL & MEDICAL SERVICE / 530 EAST WOODROW WILSON AVE. / JACKSON, MISS. / TELEPHONE EM 6-1422



"relief of symptoms is striking with Rautrax-N"†

Rautrax-N decreases blood pressure for almost all patients with mild, moderate or severe essential hypertension. Rautrax-N also offers a new sense of relaxation and well-being in hypertension complicated by anxiety and tension. And in essential hypertension with edema and/or congestive heart failure, Rautrax-N achieves diuresis of sodium and chloride with minimal effects on potassium and other electrolytes.

Rautrax-N combines Raudixin (antihypertensive-tranquilizer) with Naturetin c̄ K (antihypertensive-diuretic) for greater antihypertensive effect and greater effectiveness in relief of hypertensive symptoms than produced by either component alone. Rautrax-N is also flexible (may be prescribed in place of Raudixin or Naturetin c̄ K) and economical (only 1 or 2 tablets for maintenance in most patients).

Supply: Rautrax-N — capsule-shaped tablets providing 50 mg. Raudixin, 4 mg. Naturetin and 400 mg. potassium chloride. *Rautrax-N Modified* — capsule-shaped tablets providing 50 mg. Raudixin, 2 mg. Naturetin and 400 mg. potassium chloride.

†Hutchison J. C.: Current Therap. Res. 2:487 (Oct.) 1960.

For full information, see your Squibb Product Reference or Product Brief.

Rautrax-N*

Squibb Standardized Rauwolfia Serpentina Whole Root (Raudixin) and Bendroflumethiazide (*Naturetin) with Potassium Chloride

SQUIBB *Squibb Quality — the Priceless Ingredient*

SQUIBB DIVISION Olin

'RAUDIXIN'®, 'RAUTRAX'®, AND 'NATURETIN'® ARE SQUIBB TRADEMARKS.

oral fulvicin brand of griseofulvin

Schering

"Griseofulvin appears to be the most effective drug available for the treatment of fungus infections of the nails...." Council on Drugs: J.A.M.A. *176*:594 (May 20) 1961.

in four months,* FULVICIN *cleared T. rubrum infection of nails and palms

1 March 20, 1961—therapy with FULVICIN started.



2 April 19, 1961.



3 May 19, 1961.



CASE HISTORY AND PHOTOGRAPHS OF PATIENT, COURTESY OF NORMAN ORENTREICH, M.D., NEW YORK, N.Y.

When Mr. R. Y. was first seen, three fingernails on his left hand showed thickening, opacity and brittleness. The patient also had well-defined erythematous plaques on the palms. Cultures of *Trichophyton rubrum* were obtained from scrapings. The patient was placed on FULVICIN, 250 mg. q.i.d., and a 2% salicylic acid cream. After four months, both nail and palmar involvement had cleared completely and all therapy was discontinued. The patient's hands were free of ringworm when examined one month after completion of the course of therapy with FULVICIN.

SUPPLIED: FULVICIN Tablets (scored), 500 mg., bottles of 20 and 100; 250 mg., bottles of 30, 100 and 500.

For complete details, consult latest Schering literature available from your Schering Representative or Medical Services Department, SCHERING CORPORATION, BLOOMFIELD, NEW JERSEY. S-944

4 June 19, 1961—therapy with FULVICIN stopped.



5 July 19, 1961—four-week follow-up.





Especially useful in chronic pain, Darvon® Compound-65 effectively relieves inflammation and pain . . . does not cause addiction or tolerance (. . . and Darvon Compound-65 doesn't require a narcotic prescription). Each Pulvule® Darvon Compound-65 provides 65 mg. Darvon®, 162 mg. acetophenetidin, 227 mg. A. S. A.®, and 32.4 mg. caffeine. Usual dosage is 1 Pulvule three or four times daily. This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana.

DARVON® COMPOUND-65 Lilly

Darvon® Compound (dextro propoxyphene and acetylsalicylic acid compound, Lilly); Darvon® (dextro propoxyphene hydrochloride, Lilly) (α-*d*-4-dimethylamino-1,2-diphenyl-3-methyl-2-propionoxybutane hydrochloride); A.S.A.® (acetylsalicylic acid, Lilly) 220212

JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION
June, 1962, Vol. III, No. 6

ORIGINAL PAPERS

Omphalocele in the Newborn: Management and Case Report

ALBERT L. MEENA, M.D.
Jackson, Mississippi

Omphalocele, a relatively rare congenital anomaly, is reported to occur about once in every 5,000 to 6,000 births. Its occurrence, however, constitutes one of the true surgical emergencies. Careful handling, speed, and competent management are necessary if these children are to survive and grow normally. The author discusses the origin, diagnosis, and treatment of omphalocele and presents a case report.

ONE OF THE TRUE surgical emergencies occurring in the newborn is the infant born with an omphalocele. Gentleness, speed, and expert management of the preoperative and postoperative periods are mandatory if the newborn is to survive and to grow into normal adulthood. This paper will deal with the pathophysiology of omphalocele and a case report.

DEFINITION AND EMBRYOLOGY

An omphalocele represents an arrest of normal development and is a herniation of the abdominal viscera into the base of the umbilical cord. During embryonic life the abdominal viscera grow at a rate which is much faster than the growth of the abdominal wall. To compensate for this, during the sixth to tenth weeks of life, a portion of the viscera protrudes through the base of the umbilical cord outside of the cavity until the tenth week of life. At this time, the abdomen enlarges at an accelerated pace and the organs rotate back into their normal positions. If the intestines fail to return into the peritoneal cavity, then the infant is born with an omphalocele. The intestine protruding through the umbilical region is usually encased in a thin, white, fragile membranous sac which is made up of a fusion between the peritoneum and a layer of the amniotic membrane and is not covered with skin. The infant may be born with the sac intact or ruptured.

The diagnosis of an omphalocele can usually be made by inspection. However, if the herniation is so small that it appears to be a normal part of the umbilical cord, it can be overlooked. Because of this factor, the nurse or the doctor who ties off the umbilical cord should be particularly observant of a small mass underneath the cord. It is obvious that an omphalocele with a loop of small bowel contained within it could easily be tied off along with the umbilical vessels. The omphalocele may be several centimeters in diameter or may be as large as a grapefruit. The average size is 6 to 8 cm. in cross dimensions. The sac is usually avascular except for the umbilical blood vessels which course over it. The defect in the abdominal wall usually has no direct relationship to the size of the presenting omphalocele. It is

usually 4 or 5 cm. in diameter but it may be much smaller or much larger. The abdominal skin stops just at the base of the omphalocele and does not cover the sac. The sac may contain loops of small intestines, stomach, spleen, pancreas, and the bladder. The transverse colon is present in the sac in about one-third of the cases. During the first 12 to 24 hours the baby shows no altered physiology from the displacement of its viscera. Rather, in fact, this displaced viscera tends to act as a decompression valve and the baby appears to do quite well.

ASSOCIATED ANOMALIES

There is a high incidence of associated congenital anomalies occurring along with an omphalocele. In Gross' series, 59 per cent of his babies had some other anomaly. The majority of these were minor, but some were serious, such as congenital heart disease, imperforate anus, and malrotation of the intestine and colon. Intestinal obstruction due to malrotation occurred in 28 per cent of the series. It is assumed that defects in mesentery attachments and failure of the abdominal wall closure occurring at about the same time in embryological development explain the high incidence of association of these two conditions. Vomiting during the postoperative period of an omphalocele repair sometimes indicates obstruction for which another urgent operation is required.

MANAGEMENT

We believe that wherever feasible the management of a newborn infant with an omphalocele should be handled jointly by a pediatrician and a surgeon. These children are usually premature infants and the postoperative care requires as much or more skill than the surgical operation itself.

The infant born with an omphalocele should be transferred directly from the delivery suite to the operating room. The old axiom that the baby should pass directly from the obstetrician's hands to the operating table is certainly true. Haste in getting the patient to surgery prevents the expansion of the bowel with swallowed air, it averts drying out of the amniotic sac, and it minimizes contamination of the sac by airborne bacteria. Before actually operating upon the infant, however, care should be taken to do a rather complete physical examination and if possible, an x-ray of the chest, because no other group of infants has a higher percentage of associated anomalies. If the omphalocele sac is intact, it should be immediately lavaged with zephiran solution and covered with gauze soaked in saline. If the sac has ruptured during delivery or prior to delivery, the exposed viscera should be irrigated with copious amounts of saline to remove bits of meconium and any contamination that may have occurred during delivery. The loops of bowels should then be encased in an envelope of moist gauze and covered with a towel encircling the abdomen. If time permits, a venous cutdown should be performed using the saphenous vein in one of the ankles and a rectal thermometer inserted to maintain the temperature around 97°F.

The surgical problems are in direct ratio to the extent of herniation. These are divided into the large omphaloceles which contain much of the bowel and a portion of the liver, and the small



Figure 1. Omphalocele with ruptured sac present at birth. Notice the distended viscera which includes the stomach, colon, and three-quarters of the small intestine. Notice also the shaggy exudate in between the loops of intestine. The umbilicus is to the left of the stomach in the lower portion of the photo.

omphaloceles. Basically there are two types of surgical procedures which can be done.

ONE STAGE REPAIR

In the one stage repair the intestinal contents are replaced into the abdominal cavity, the amniotic sac is completely excised, and a layer closure performed of the abdominal wall. Of course, this is the ideal surgical procedure and the one which we all strive to perform. However, if there is danger of producing respiratory distress or obstruction of venous return by replacing these intestines, which in essence have lost their right of eminent domain, then one should perform a two stage procedure.

The procedure of the one stage operation consists essentially of replacing the viscera, excising

the walls of the sac, and doing a suitable closure of the abdominal wall. Replacing the viscera may become a very difficult problem because the defect in the abdominal wall may be small and the herniated intestines may have become filled with air. In order to deflate the intestines a small, No. 8, soft, red rubber catheter may be introduced into the stomach through the nose and the stomach deflated in that manner. If a tube cannot be inserted or air has progressed past the stomach, direct aspiration with a needle, syringe, and a three way stopcock can be performed closing the puncture site with a purse string suture following aspiration and being careful not to spill any of the aspirate into the peritoneal cavity. If the sac has ruptured in utero, the viscera will assume a red, beefy, appearance and be covered with a shaggy exudate which binds them into one boggy mass. Needless to say, care must be exercised in using the utmost gentleness in handling these young viscera. One may wonder at the time about the viability of these viscera, but copious irrigation with saline and replacement into the peritoneal cavity will almost always rejuvenate them. One should strongly resist the temptation to perform any type of resection unless there is frank gangrene present.

After the viscera have been replaced and before the abdominal wall is closed, a temporary Stamm gastrostomy should be done. This is a very important portion of the procedure because two of the most dangerous complications following surgery in the infant are pneumonia and atelectasis. A gastrostomy tube eliminates the need of a Levin tube through the mouth or nasopharynx and thus markedly decreases the hazard of aspiration of intestinal material into the lungs. The gastrostomy can very easily be performed by inserting a No. 12 Pezzer catheter (a Foley is contraindicated because the bag may become decompressed for one reason or another) into a stab wound on the greater curvature of the stomach and away from the pylorus and then inverting it by two purse string sutures of 4-0 chromic catgut sutures. The catheter should be brought out through a stab wound in the left upper quadrant of the abdomen and the tube should be anchored firmly to the skin with a 4-0 silk suture. If it is technically possible, the anterior wall of the stomach should be attached to the peritoneum of the anterior abdominal wall to prevent leakage. If omentum is present, the catheter may be brought through a hole in it to allow for better sealage in case of leakage around the purse string sutures. The tube may be connected to a very mild intermittent suction, but it is better to leave it open and attached to the outer barrel of a syringe and asiprate it at intervals. The tube may also act as a feeding tube and can be removed when no longer needed. The stab wound in the stomach will seal and complications rarely arise from this procedure. In excising the wall of the sac it is best to freshen the edges of the presenting ring in order to obtain the strongest postoperative healing of the wound. One should try to free up the muscle and fascial layers around the ring in order to get a better closure, but this is not always possible. The peritoneum and posterior rectus sheath should be closed simultaneously by continuous sutures. The recti muscles should be mobilized so

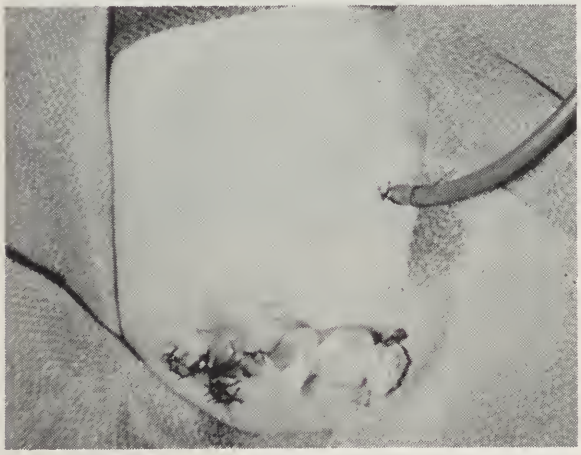


Figure 2. Immediately postoperative first surgical procedure which consisted of reducing the omphalocele, closing only the skin, and inserting a Stamm gastrostomy in the left upper quadrant. The umbilical cord may be identified as the structure with the umbilical tape around it.

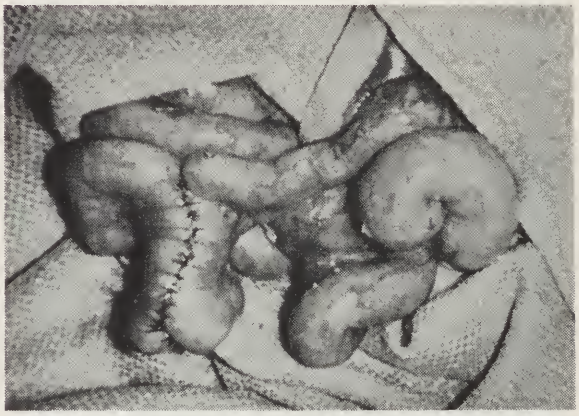


Figure 3. Ileo-ascending colostomy performed on the seventh postoperative day for obstruction at the ileo-cecal valve. Notice that the terminal ileum, which is in the left of the photo, is dilated to approximately the size of the ascending colon.

that they can be approximated in the midline and closed. The anterior rectus fascia should be dissected out and joined or overlapped with interrupted stitches.

POSTOPERATIVE COMPLICATIONS

In electing to do a one stage repair it is somewhat difficult at times to close the abdominal wall, but this usually does not affect the physiology of the baby at the time. It is the postoperative con-



Figure 4. Defect in the abdominal wall to the left of the umbilicus. It was oval in shape and measured 6 x 5 cm. The healed right rectus incision can be seen on one edge of the defect.

dition of the baby which may be precarious. If the viscera are forced into the abdominal cavity and a very tight closure of the abdominal wall performed, there are three serious complications which could arise. Pressure on the inferior vena cava impedes the return of blood from the lower abdomen and leg so that death may occur from circulatory collapse. Respiratory disturbance may occur with severe cyanosis and death from displacement of the diaphragm upward or pressure on the stomach and intestines may bring about a partial or temporary intestinal obstruction. These complications may occur from 12 to 36 hours and usually will end fatally. One may safely say that if a child lives 48 hours following one of these procedures the chance of a successful outcome is excellent.

TWO STAGE PROCEDURE

If the omphalocele is large and a two stage procedure is elected, then the first stage should consist merely of closing the skin over the intact amniotic sac, if one is present, or if the sac is ruptured, merely closing the skin. Preserving an intact sac will prevent formation of adhesions and make the secondary repair easier. If the sac is so large that the skin cannot be closed over it in a routine manner, then the skin should be mobilized and relaxing incisions made in a vertical manner on each lateral aspect of the abdominal, chest, and flank walls and the skin pulled over the sac and closed. The defect created by the relaxing incisions may or may not be skin grafted according to their size. Then, at a later date after the abdominal wall has compensated for the replaced viscera, the entire sac and skin edges may be removed and a formal closure in layers of the abdominal wall performed.

The longer one waits, the more difficult the closure will be because the rectus muscles will be pushed farther and farther laterally. Gross,[1] Swenson,[2] and Koop[4] all advocate waiting several years until the protruding mass is easily reducible before performing the closure. Potts[3] states, however, that he performs the second stage as soon as the child is in good enough shape to withstand the procedure since he has had several children whose bowels literally were "hanging in a sac" and repeated attempts to bring muscle over the viscera met with failure. In the final analysis each case must be judged separately.

Grob[2] has suggested an alternate treatment for infants with massive omphaloceles or newborns



Figure 5. Repair of abdominal wall defect utilizing a Mayo vest-over-pants repair.

with omphaloceles and associated severe constitutional diseases such as congenital heart disease. This consists of painting the sac with 2 per cent mercurochrome daily for three days. A shrinking eschar is formed which gradually forces the sac contents into the abdominal cavity. The disadvantage of this process is that it takes about three months for completion and requires that the patient remain in the hospital for the entire

period of therapy. However, there are many successes reported utilizing this procedure.

CASE REPORT

This was a 3 pound, 6 ounce white female infant born prematurely on Nov. 30, 1960, with an



Figure 6. Appearance of abdominal wall following completion of repair of the hernia.

omphalocele whose sac had ruptured in utero (Figure 1). Pediatric and surgical consultation were immediately sought and when we saw the child the operating room was alerted instantly. A warm, moist towel was placed over the intestines and the infant was transported to the operating room after cursory physical examination revealed no obvious serious congenital anomalies. No x-rays were made at that time. We proceeded with anesthesia immediately because each time the infant cried more viscera would protrude. Endotracheal anesthesia was used and when the infant was asleep we copiously irrigated the exposed viscera with warm saline, performed a venous cutdown in the right leg, wrapped the arms and legs with Kerlex to preserve body heat, inserted a rectal thermometer, and surgically draped the patient after minimal preparation of the surrounding skin edges.

The defect of the abdominal wall was located to the left of the umbilicus, was oval, and measured six centimeters in its greatest diameter. Only remnants of the omphalocele sac were found. The viscera were a beefy red and covered with a shaggy exudate. The mesentery was thickened and boggy but good pulsations were felt throughout. Because of the large amount of air in the stomach and in the intestinal tract we were unable to replace the viscera. A tube was inserted into the stomach through the nose, but decompression was incomplete so the stomach was directly aspirated with a needle, syringe, and a three way stopcock, suturing the perforation with a 4-0 chromic catgut suture at the termination of the aspiration. Following this, reduction was accomplished with some difficulty.

A Stamm gastrostomy was performed about midway on the greater curvature of the stomach using a No. 12 Pezzer catheter and inverting it with two purse-string sutures of 4-0 chromic sutures. The tube was brought out through a stab wound in the left upper quadrant. It was elected to perform a two stage procedure because the abdominal wall was very tense after all the viscera had been replaced and we were afraid of causing further respiratory or circulatory embarrassment if a primary closure were performed. Consequently the skin was freed up and closed over the viscera without difficulty (Figure 2).

Postoperatively the infant was never able to tolerate feedings and developed abdominal distention and vomiting. On the seventh postoperative day a lipidol swallow revealed an obstruction at the ileocecal valve. On the following day, Dec. 7, 1960, surgical exploration of the abdomen revealed obstruction of an unknown nature at the ileocecal valve. No bands or malrotation



Figure 7. Appearance of the child in January 1962, at the age of 13 months. Her weight was 20 pounds, 1 ounce and her development had been normal in every way.

were present but there was thick tenacious meconium present inside of the intestines. A bypass side to side ileo-ascending colostomy was performed because this appeared to be the safest and quickest procedure in a very sick child (Figure 3). The infant was maintained on I.V. fluids until the eighth postoperative day (15th day of life) when she was able to tolerate oral feedings. Her weight at this time was 4 pounds, 2 ounces. The gastrostomy tube was removed on the 13th postoperative day (20th day of life), and no drainage occurred from the gastrostomy site.

On Jan. 9, 1961, (40 days of life) when the infant had gained to five pounds, a primary repair of the defect in the abdominal wall was performed. Because the defect was oval in nature and measured 6 x 5 cm. we were unable to approximate the rectus muscles and had to perform a Mayo type vest-over-pants closure (Figures 4, 5, and 6). Postoperatively the infant did well and was discharged on Jan. 29, 1961, 60th day of life, weighing 6 pounds, 2 ounces. She was last seen in January 1962, at 13 months of age (Figure 7). Her weight was 20 pounds, 1 ounce and her development had been normal in every way. ★★★

1151 North State Street

REFERENCES

1. Gross, Robert E.: The Surgery of Infancy and Childhood, Philadelphia, W. B. Saunders Company, 1953, pp. 406-422.
2. Swenson, Orvar: Pediatric Surgery, New York, Appleton-Century-Crofts, 1958, pp. 249-253.
3. Potts, Willis J.: The Surgeon and the Child, Philadelphia, W. B. Saunders Company, 1959, pp. 149-151.
4. Koop, C. Everett: Emergency Surgery of the Newborn, Clinical Symposium 11:45 (March-April) 1959.

OVER-SEXPOSED

The pretty young thing, dressed for maximum exposure, edged up to the handsome physician to whom she'd just been introduced.

"Oh, doctor," she murmured, "I feel a cold coming on. What should I do?"

In his best professional manner, the doctor replied: "Just go home, get dressed, and climb in bed."

—Tony Randall in *Parade*

External Otitis

EDLEY H. JONES, M.D., and PATRICK G. McLAIN, M.D.
Vicksburg, Mississippi

External otitis, according to the author's definition, includes all inflammations of the external ear and canal. He discusses the acute, sub-acute and chronic forms, and outlines general and specific treatment.

"External Otitis" is a general term which includes all inflammations of the external ear and canal. Since these areas are entirely covered with skin, the disturbances are basically dermatoses. Postoperative mastoid and fenestration cavities must be included and it should be recognized that such exposure of remaining middle ear structures and/or the horizontal semicircular canal may complicate treatment materially.

This will be a clinical presentation. Necessarily, some reference will be made to previous reviews and studies and to current research, but primarily treatment will be discussed. Since therapy is often a matter of opinion, we will refer only to our studies and experience. Previous histopathologic studies made by the authors[7, 8] are of fundamental importance in the discussion. The literature will not be reviewed, but those interested are referred to the contributions of the Gills,[1, 2] McLaurin,[3] and Senturia.[4]

In treating any form of external otitis, it is important to take an adequate history, conduct a thorough clinical examination, and make indicated laboratory studies at the first visit. A diagnosis, at least a provisional diagnosis, should be made before instituting treatment. Clinically, we have found this etiologic classification helpful.

EXTERNAL OTITIS

Etiologic Classification

1. Traumatic
2. Infectious
   - A. Bacterial
     - a. Gram-positive
     - b. Gram-negative
   - B. Fungal
   - C. Viral
3. Allergic
   - A. Contact
   - B. Acute Infectious Eczematoid
   - C. Atopic
4. Seborrheic
5. Neurogenic
6. Mild Chronic Nonspecific

This classification is not comprehensive but will cover at least 90 per cent of the cases seen clinically.

Trauma may be primary, such as prolonged exposure to water while swimming, or secondary, such as scratching an itching ear. Trauma is important in that it may be followed by superimposed infection or may aggravate existing inflammation.

Therapeutically, this classification may also be divided into (1) the acute cases and (2) chronic and sub-acute cases, although these terms must be used relatively. In general, when seen by the otologist, the viral, gram-positive bacterial, contact allergy, and acute infectious eczematoid dermatitis cases are acute. Fungal, gram-negative bacterial, atopic, seborrheic, neurogenic, and nonspecific dermatitis are usually sub-acute or chronic—requiring, however, only trauma with superimposed gram-positive infection and/or contact allergy to convert them into acute cases.

ACUTE FORMS

Infectious dermatitis may be bacterial (gram-positive or gram-negative), fungal (usually nonpathogenic) or viral (rare), or any combination. We[8] have found gram-positive cocci in hair follicles and we know that pathogenic microorganisms are in the air and may be found on the skin

Read before the Section on Eye, Ear, Nose and Throat, 93rd Annual Session, Mississippi State Medical Association, Biloxi, May 9-11, 1961.

surface—requiring only such trauma as prolonged exposure to water or scratching to induce infection. Our studies further indicate that many patients have residual gram-negative bacterial or fungal infections which run the course of acute infection, subsiding under treatment and recurring with trauma such as scratching and exposure to moisture, or lowering of the patient's resistance. (This theory, however, is not yet proven by histopathologic study.) Specifically, a diagnostic point is that, whenever a patient complains of definite pain on manipulation of the auricle or pressure on the tragus, there is a (comparatively) deep gram-positive infection, whether or not found in smears or cultures. Infectious dermatitis can be aggravated by trauma and complicated by contact allergy and, perhaps more important, can complicate all other forms of external otitis.

Allergic dermatitis has been rather thoroughly discussed in previous articles.[5, 6, 9, 10] Primary contact dermatitis usually involves the auricle or post-auricular area first; secondary contact dermatitis is often due to "ear drops," first involving the canal. Acute infectious eczematoid dermatitis is always secondary to a purulent infection of the canal or a purulent otitis media.

In most of our severe cases two or more of these diseases are found. Acute bacterial infection will be superimposed on a fungal infection, or perhaps trauma will aggravate a case of seborrheic dermatitis, inducing acute bacterial infection, on which may also be superimposed an acute contact dermatitis.

SUB-ACUTE AND CHRONIC FORMS

Fungal infections comprise about 12 per cent of our cases. In general, mycologists consider these fungi of no importance. However, when fungal spores drift into an external ear canal with a little moisture they set up housekeeping, with resultant desquamation of moist epidermal scales and plaques, causing itching and a sense of fullness and discomfort. A little scratching, with superimposed bacterial infection, causes an acute, and sometimes very severe, inflammation. Atopic dermatitis is rare and is always diagnosed therapeutically. Seborrheic dermatitis is very common, always accompanied by dandruff in the scalp and often by seborrheic lesions on the face. Although neurogenic lesions that involve the ear as a part of a contiguous area may be very acute, in our experience the lesions confined entirely to the auricle and canal fall into the subacute or chronic classification. In addition our[8] studies reveal there are some patients suffering with itching of the skin of the canal, often accompanied by a mild sensation of fullness, and no other symptoms, that justify only the diagnosis of mild chronic nonspecific dermatitis.

It is particularly important to diagnose these mild cases and teach the patient how to control them to prevent acute episodes. It is equally important that patients seen in the acute phase who are basically suffering with one of the mild chronic dermatoses with acute complications should be properly diagnosed. When the acute phase has been relieved, these patients should be taught how to control the chronic phase and prevent recurrences of acute episodes.

GENERAL TREATMENT

Practicing otologists are primarily concerned with therapy. There are certain basic principles that apply to all cases.

Patients suffering with pain must be given relief. Aspirin and similar drugs will relieve only the mild cases; Darvon in adequate doses will relieve the majority of cases; opiates will be required in the very severe cases. One should be careful that the patient is not allergic to the preparation prescribed. Barbiturates should never be prescribed in any case of dermatitis because, in adequate doses, the patient will sleep, but may still scratch while sleeping. Tranquilizers are desirable in some cases, along with sedatives.

The acute gram-positive infectious cases should be given the benefit of adequate antibiotic and/or chemotherapy. Such therapy should not be delayed awaiting the antibiotic sensitivity culture reports. Patients should not be given drugs to which they are known to be allergic, but when penicillin is known to be tolerated, it is the antibiotic of choice and should be given in adequate doses. We usually give 800,000 to 1,600,000 U. the first day, being guided by results as to what to give the next day. If the patient cannot take penicillin, we follow our experience with recent ABS cultures, prescribing the antibiotic that has currently been most effective, often prescribing combinations such as Panalba or Signemycin. When the ABS culture report is received, a change is made if indicated.

Patients with allergic forms of external otitis should be given the benefit of antihistaminic therapy, following their experience and prescribing the antihistamine previously found most effective. This is not adequate in severe cases and corticosteroids should be employed when indicated, pre-

scribing the preparation you have found most effective. It should be prescribed in adequate doses, comparatively large doses at first, decreasing the dose rapidly as results are obtained. If results are not obtained with fairly large doses in two days, we switch to ACTH. These preparations can be given intravenously, but we have not found it necessary to resort to that route in these cases.

As in any severe infection, the patient must have adequate rest. In the very severe cases the patient should have bed rest and it is occasionally necessary to admit the patient to the hospital for adequate rest, with supplemental therapy. When the infection is not too severe and the daily duties do not require a great deal of physical exertion or constant attention, the patient is often happier having something to do during the day, but must be given sufficient sedation to rest at night.

A basic principle of local therapy is that the ear canal must be kept clean, but it is equally important that trauma in cleaning the ear be avoided. The otologist must use the procedures best tolerated by the patient—irrigation, cotton-tipped applicator and suction. Our preferred irrigating solution is 1 per cent acetic acid and we have found it tolerated in the most acute cases. It has the advantage of being slightly acid and not absorbed by the skin. Tip suction, if used, must be used carefully to avoid any trauma; the epidermis should not be broken. This precaution also applies to cotton-tipped applicators.

It is desirable for the patient to have a dry canal when discharged from treatment and this can be obtained by prescribing alcohol drops for three to five days. We usually employ 1 or 2 per cent acetic acid in ethyl alcohol.

In the mild chronic cases itching can be controlled by the application of hydrocortisone lotions and creams. We teach our patients to apply these with small cotton-tipped applicators, particularly stressing the point that they are to apply the preparation to stop itching, not to scratch with the applicator.

SPECIFIC TREATMENT

The most commonly encountered form of viral external otitis is acute bullous otitis, which may become hemorrhagic at a later stage. This condition usually involves the tympanic membrane, but sometimes involves only the osseous canal wall. It may also involve both areas. The patient can be given a great deal of relief by anesthetizing the area with Bonain's solution, then incising and draining the blebs. Some mild preparation of bactericidal or bacteriostatic value should be prescribed to prevent secondary infection.

The severe infectious cases of external otitis, characterized by severe pain, fever, and malaise, are almost always staphylococcal with an occasional streptococcus pyogenes infection. These include the "swimming pool" and "hot weather" ear, the occasional case of simple furunculosis, and the severe cases with multiple furuncle and abscess formation. These infections can be excruciatingly painful, and the patient is entitled to every medication that will give relief. When the skin of the ear canal is markedly swollen with no localization or "pointing," we pack the canal fairly tightly with a cotton pack moistened with the medication we think indicated. I must confess that I have not found the antibiotic and/or hydrocortisone preparations very effective in this type of case and often resort to metacresylacetate. It is my experience that approximately 10 per cent of my patients have a contact allergic reaction to this medication and I have to watch it closely, but I still find it more effective in those patients not allergic to it than any other medication. It causes necrosis of the epidermis, which hastens the drainage of any localized collection of pus, but it also causes tremendous desquamation of the epithelium and I cannot think it beneficial to the tympanic membrane. When a patient has previously reacted to metacresylacetate, I use one of the other preparations in a pack in the same manner; the "splinting" effect of a moderately tight cotton pack will keep the subcutaneous tissue from further swelling and the resultant pain.

In cases with definitely localized furuncle or abscess formation, in a patient that is cooperative, I advise incision and drainage. I do not recommend this procedure in young children or apprehensive patients. I always tell the patient that I think they will recover more quickly with less pain if the "boil" or "abscess" is opened and drained. Most of our patients request us to do anything that will aid them in recovering more quickly. The procedure is to inject 0.3 to 0.5 cc, 2 per cent Xylocaine or 1 per cent Carbocaine with 1:50,000 Epinephrine solution added, approximately 5 mm. external to the pointing area, injecting the solution very slowly and waiting three to five minutes before proceeding. Then, using a BP knife with a new No. 15 blade, or equal, with a slicing motion, the pointing area is excised with an elliptical V-shaped or "trough" incision, not extending to the perichondrium. A firm cotton pack is inserted immediately for hemostasis. After a few minutes another firm cotton pack, saturated with one of the antibiotic-hydrocortisone preparations, is inserted. The in-

cision is often healed in two days and almost always in four. I have performed this procedure a great many times and can recall that only occasionally have I had to use Epinephrine to control oozing, and only once that I used Monsel's solution, and never any other difficulty; and these patients always recover more quickly.

Another acute inflammation which will bring patients quickly to your office is a very acute contact dermatitis. These patients require immediate, attentive treatment. The first step is to determine, if possible, the offending antigen and discontinue all contact. Remembering that such skin is then sensitive to substances to which it is not ordinarily sensitive, all cosmetics, and particularly lacquers, should be discontinued. The patient is directed not to touch the ear with the fingers, using only paper tissue, cotton or white cotton cloth. The most effective topical medication at first is the frequent application, for 10 to 12 minutes at a time, of cotton packs saturated with cold Domeboro solution. These applications can be repeated every hour or two in the severe case, four to two times daily in the milder case. It is of particular importance that the packs be used only 10 to 12 minutes at a time, to avoid reversing the reflex; this does not apply when the condition is so severe that cold packs are applied continuously. If the skin of the canal is involved, the patient should insert a little wick of cotton in the canal before such application, so the solution will reach that area.

A third acute dermatitis that may involve the ear, most often the auricle, is pyoderma. This is a staphylococcal infection involving the glands of the skin and hair follicles. Usually mild, pyoderma can become very severe. The stage of the disease indicates the treatment. In the mild cases, showing only a few pustules, the skin should first be soaked with an antiseptic preparation (such as 1:1,000 Zephiran solution) and the individual pustules opened. Application of a topical antibiotic solution is adequate. In the severe cases, where there is definite edema of the skin, this same procedure should be performed, followed by the application of packs of cold Domeboro solution as outlined above, along with the procedures advised under general treatment.

The fourth acute inflammation is acute infectious eczematous dermatitis, which usually involves the concha, rarely any part of the canal except the meatus. This is an allergic reaction of the skin to purulent discharge, either from the canal or the middle ear. The causative infection must be cleared up before recovery, but severe inflammation requires the immediate application of Domeboro packs, along with indicated antibiotics and antihistamines, sedatives, and, in some cases, corticosteroids, as outlined above.

The very severe, and often perplexing, cases are those in which there is a combination of mixed infection (fungal and/or gram-positive and/or gram-negative bacterial) on which there may be superimposed acute contact or acute infectious eczematoid dermatitis. When fungal infection is present in such cases, it can be temporarily controlled by daily cleansing while treatment is directed towards the relief of the acute inflammation. After the other inflammations have been controlled, treatment should be directed toward eradicating the fungal infection. In combined acute infections and contact dermatitis cases, the treatment of these conditions must be combined and administered simultaneously.

SUB-ACUTE AND CHRONIC

Uncomplicated gram-negative purulent infections of the external ear are usually simple to control. One characteristic is that the auricle can be manipulated without pain, though pus is present. In our laboratory these infections are reported, in the order of their frequency, as Pseudomonas, Proteus, Escherichia coli and Paracolobactrum. These organisms are usually sensitive to both polymyxin and neomycin, which will explain the excellent results claimed for preparations containing these antibiotics. Our clinical studies also indicate that some patients with such infections will apparently clear up after treatment of an acute episode with such preparations but still have residual gram-negative bacilli in their hair follicles and/or gland ducts, awaiting only another occasion of trauma or lowered resistance to flare up. You may be interested in learning that in our recent studies[11] we found that 5 per cent acetic acid is bactericidal to these organisms in vitro. Our treatment is to irrigate the canal gently but thoroughly with 1 per cent acetic acid solution. If the inflammation is not severe, we then irrigate with 70 per cent isopropyl alcohol and prescribe:

℞	36 per cent Acetic Acid	4.25
	95 per cent Spts. Vini Rect. qsad	30.00 cc.

The patient is instructed to lie down with the affected ear up, completely fill the canal and allow the solution to remain for two minutes, three times daily. If the inflammation is too acute to tolerate alcohol, we insert a wick moistened with a mild solution of neomycin and/or polymyxin, prescribing the same solution for home use. If

the patient has complained of itching, we use a similar solution containing hydrocortisone. When the acute stage subsides, we prescribe the acetic acid-alcohol mixture. Our experience to date indicates this treatment is effective, but we are continuing our studies and observation.

Fungal infections of the external ear canal are considered of little or no importance by many mycologists because the infections are considered nonpathogenic. The patient suffering with residual and recurrent fungal infections, complicated by bacterial infection and/or allergic inflammation, will not agree. We have been sufficiently interested that we have been doing some research in this field. In a six month period, 25 positive cultures have been obtained from 21 patients (cultures from both ears in two patients, two patients with different fungi on different dates) with a total of 39 different fungal infections, of 11 genera. For example, one patient had two different species of Aspergillus in one canal, and a third specie in the other. These studies will be reported in some detail at a later date, but we can now state that, as of the present, the most effective fungicide we have found for use in the external ear canal is:

℞	36 per cent Acetic Acid	1.00
	Quatrasal Solution qsad	30.00 cc.

The patient is directed to fill the external canal completely for two minutes three times daily for one week, then return for a culture. This preparation can be immediately prescribed for the occasional patient seen with macroscopic fungi in the canal, without an accompanying acute infection. These cases are rare and we make most of our diagnoses by routinely taking bacterial and fungal cultures from all patients suffering with external otitis. Some fungal cultures show growth in three to five days, most of them in two weeks and an occasional one requires four or five weeks. We hold our cultures for six weeks before discarding them as negative. Ordinarily the patient with an acute case, who also has a fungal infection, has been relieved of all acute symptoms before the fungal culture is reported positive and the above preparation can be prescribed. If not, treatment of the acute inflammation is continued until it subsides and Quatrasal then prescribed. We have found it effective in all but two of these cases. Our studies are continuing and we are particularly interested in finding an effective fungicide that can be employed in patients with tympanic perforations without irritation of the middle ear mucosa.

Seborrheic external otitis can be easily controlled provided the patient will follow instructions, and therein lies the difficulty. All seborrheic inflammation should be controlled. Selsun is usually (not always) effective in controlling dandruff. Accompanying uncomplicated seborrheic blepharitis can be controlled with 3 per cent ammoniated mercury ophthalmic ointment if the patient is not allergic to mercurials. Domeform-HC Creme is effective when applied to the external canal and auricle, as well as to lesions around the alae, or on the forehead and neck.

Uncomplicated neurogenic dermatitis of the external canal and auricle, in our experience, has always been comparatively mild. At this stage the symptoms can be relieved by the frequent application of hydrocortisone lotions or creams but, unless the basic neurogenic factors are recognized and eliminated, the lesions will not clear up. Neurogenic lesions can itch intensely and neurogenic skin is so sensitive that the trauma of scratching causes immediate, and often severe reaction, not unlike angioneurotic edema, which may be further complicated by superimposed (usually staphylococcal) infection, or intensified by contact dermatitis from self-medication. Unfortunately, some patients delay seeking medical attention until this stage, when the ear is only a part of the involved area. Cold Domeboro packs, hydrocortisone lotions, topical and systemic antibiotics, along with tranquilizers and sedatives in large doses (with antihistamines and corticosteroids or ACTH if complicated by allergy) may be required to give relief. Again, the neurogenic factor must be recognized and eliminated or the patient will suffer a recurrence of the ear inflammation or some other neurogenic manifestation.

Lastly, there are some cases of mild chronic nonspecific dermatitis, presenting only the complaints of a sensation of fullness and itching of the skin of the canal. Histopathologic study[8] may justify the diagnosis of a mild dermatitis, but a careful search of their history, exposure and habits, along with thorough clinical and laboratory study will support only the diagnosis of mild chronic nonspecific dermatitis. These patients should be advised to avoid getting water in the external ear canal by using a shower cap when taking showers or plugs of lamb's wool when washing the hair and by instilling alcohol following swimming. Hydrocortisone lotions or creams should be used to relieve the itching.

CONCLUSION

In conclusion, the severely acute cases demand our immediate attention. It is always satisfying,

and often dramatic, to relieve their suffering, and we should make every effort to give them complete relief. While not at all dramatic, in the spirit of the true physician, we should advise patients with mild chronic dermatoses that neither we nor they can "cure" such inflammation in the sense that it will never again recur, but we can teach them how to *control* it and prevent acute episodes. Similarly, after relieving patients with acute episodes, we should determine if the acute infection was superimposed on a chronic inflammation and, if so, teach them to control it and prevent recurrences. ★★★

1301 Washington Street

REFERENCES

1. Gill, W. D.: Otomycosis: Some Remarks Concerning Its Prevalence, Symptomatology, and Treatment, Ann. Otol. Rhin. & Laryng. 47:189-197, 1938.
2. Gill, E. King: Evaluation of Treatment in External Ear Infections, Laryngoscope 70:968-972 (July) 1960.
3. McLaurin, J. W.: The Management of Otitis Externa, Mississippi Doctor 36:115-118 (Nov.) 1958.
4. Senturia, Ben H.: Diseases of the External Ear, Springfield, Ill., Charles C Thomas, 1957.
5. Jones, Edley H.: Symposium: Allergy of the Ear—The External Ear, Tr. Am. Acad. Ophth. 61:86-90 (Jan.-Feb.) 1957.
6. Jones, Edley H.: Allergic Problems in Otology, Eye, Ear, Nose & Throat Month. 38:460-466 (June) 1959.
7. Jones, Edley H., and Norman, Tom D.: Preliminary Report on the Pathogenesis of Dermatoses of the External Auditory Canal, Laryngoscope 68:829-854 (May) 1958.
8. Jones, Edley H., and Norman, Tom D.: The Pathogenesis of Acute External Otitis, Tr. Am. Acad. Ophth. 63:63-76 (Jan.-Feb.) 1959.
9. Jones, Edley H.: External Otitis: Suggestions for Improvement in Diagnosis and Therapy, Tr. Indiana Acad. Ophth. & Otolaryng., 1960.
10. Jones, Edley H.: External Otitis: More Accurate Diagnosis, More Effective Therapy, Medical Times 89:496-501 (May) 1961.
11. Jones, Edley H., and McLain, Patrick G.: Does Acid pH Inhibit Bacterial Growth in the External Ear Canal? Laryngoscope 71:928-936 (Aug.) 1961.

THE PSYCHOMET

A machine may soon be able to establish each individual's life expectancy. The Psychomet, an electronic apparatus, has been called the tool which will ultimately explore the mechanics of aging in the central nervous system and predict with accuracy physiological changes, life span, and disease state of an individual. The Federal Aviation Agency has already used the machine to study the aging process of 160 civilian air pilots and air traffic controllers.

Management of Dysplasia and Carcinoma In Situ

F. T. MARASCALCO, M.D.
Clarksdale, Mississippi

The author discusses the evolution of cervical cancer, diagnosis and treatment. He concludes that invasive cervical cancer develops from apparently normal epithelia after passing through several stages. He writes that if all women were given the advantage of a yearly smear, invasive cervical malignancy would become a preventable disease and the second most frequent female malignancy would be eradicated.

In 1912, SCHOTTLANDER and Kermauner[1] suggested that atypical changes of the cervical epithelium at the margin of invasive cervical cancer probably represented the early stage in the malignant transformation of cervical epithelium. In these areas of atypical changes, there was no breakthrough into the underlying stroma and these atypical cells were still in situ or still within the site of origin of the epithelium. This stage has since become known as the intra-epithelial carcinoma, or carcinoma in situ, or stage O cervical malignancy.

Probably the first major medical breakthrough, which led to our present methods of clinically diagnosing carcinoma in situ, occurred in 1928. Papanicolaou[2] reported finding cells typical of cancer in the vaginal secretions of patients having cervical malignancy. Almost 12 years lapsed before this information was put into clinical use.

In 1941, Papanicolaou[3] reported his results of vaginal smears on normal patients and those with gynecological disease. He concluded that a high percentage of correct diagnosis could be obtained when the smears were checked with cervical biopsies. Since then, thousands of smears have corrobrated this, and the field of cytology has come into its own.

EVOLUTION OF CERVICAL CANCER

In the past 30 years, major recognition has been given to the application of the field theory of origin of carcinoma of the cervix. According to this concept, a tumor does not arise as a localized, small nonplastic unit, but it begins here and there in a small or large area which has undergone a progressive alteration or conversion to a potential neoplastic field. At this stage the epithelium is not cancerous, but it is in the process of becoming so, although this final stage is not necessarily inevitable. In time, however, there is usually a transition from a potentially malignant field to a definite neoplastic field. These transitional areas may be multiple, so that the neoplasm is said to have a multicentric origin. Growth is accomplished both by cellular proliferation of newly found elements and by a progressive neoplastic conversion of cells within the altered fields. Two implications of this theory have a particular bearing on the problem of carcinoma of the cervix.[4] The first area to display visible neoplasm is only the region where the neoplastic potential was the greatest, and the adjoining tissues soon follow it into active growth because they, themselves, are prone to neoplastic changes. The second implication is related to the above and has considerable importance in the surgical treatment of these lesions. The field of predisposed tissue may be of considerably greater extent than the tumor, which may be of a small size. A recurrence after surgical treatment consequently may not be due to incomplete removal of the growth, but the re-

Read before the regular meeting of the Clarksdale and Six Counties Medical Society, Clarksdale, Nov. 8, 1961.

sult of a new cancer development in the predisposed epithelia of the region.

One may then consider carcinoma of the cervix as a tumor which arises from normal epithelium after passing through certain stages.

The diagram by Fluhmann[17] (Figure 1) di-

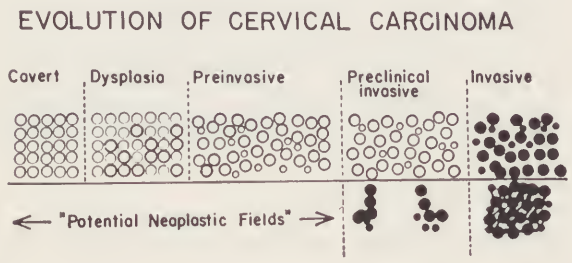


Figure 1.

agrammatically represents these various stages of development. The earliest stage he has termed as covert. It represents a period when the epithelium is exposed to a carcinogenic agent, the nature of which is unknown at the present, and at this stage there is no recognizable histological modifications of the cells. The second stage of development is that of dysplasia. In this stage, there is histological evidence of cellular changes. The third stage is the so-called latent phase and this is known as the preinvasive carcinoma or carcinoma in situ stage. The fourth phase is the preclinical stage of invasion, and the fifth is the stage of invasive carcinoma.

DYSPLASIA

Dysplasia is the name given to the early histological changes that may occur which represent a stage in the development of cancer but do not have all the characteristics of a cancer. Many other terms have been used to describe these early histological changes such as atypical epithelium, squamous metaplasia with atypicality, atypia, anaplasia, basal cell hyperactivity, dyskaryosis, and dyskeratosis. These early dysplastic changes bear a great similarity to those of carcinoma in situ. In fact, a differentiation between the two is often a matter of personal opinion. These dysplastic changes accompany many cases of carcinoma in situ and invasive carcinoma, usually at the periphery, and they are also found in isolated foci where they are considered as possible forerunners of malignancy. Dysplasia is believed to represent aberrations bridging the gap between normal and cancerous epithelia, but it apparently is not an irreversible process and may regress and disappear. The histological picture of dysplasia is not a precise entity, but several authors have given description of the outstanding features that aid in this diagnosis. The diagnosis of dysplasia is not always clear. One pathologist may regard a certain lesion as composed of minor abnormalities, while another may label the minor changes as dysplasia, and a third may label them as carcinoma in situ.

On the basis of studies by McKay,[5] Peckham *et al.*,[6] Reagan *et al.*,[7] Galvin *et al.*,[8] and others, there is no question about cervical dysplasia developing into intra-epithelial carcinoma in some patients. How often does this happen? One big factor that determines this is the length of follow-up. At the present, on the basis of these studies, one can generally deduct that in five out of ten patients with dysplasia, the lesion completely disappeared, and that in about three out of ten patients it persisted during the follow-up period, and that about two out of ten patients eventually developed intra-epithelial carcinoma. There appears to be a definite correlation between the degree of dysplasia and the ultimate natural history. Of those with minimum dysplasia, only 2 per cent eventually developed carcinoma. On the other extreme, of those with marked degree of dysplasia, two-thirds eventually developed carcinoma in situ.

Most of these lesions of dysplasia are revealed in the class 3 Papanicolaou's smears, as reported by the cytologist. On the basis of these findings, it seems justified to accept dysplasia as a lesion which bears a relationship to carcinoma in situ, very similar to that of carcinoma in situ to invasive carcinoma.

CARCINOMA IN SITU

Epidermoid carcinoma in situ is the name given to the lesion which has all of the histological attributes of malignancy except for invasion. The lesion involves the full thickness of epithelium by malignant appearing cells and there is a complete loss of the normal stratification of the epithelial cells. Carcinoma in situ of the cervix differs from invasive carcinoma in that it shows no invasion and that, in a small percentage of cases, it may be a reversible process. Generally it can be assumed that the majority of cases of carcinoma in situ will eventually progress to invasive malignancy the percentage being estimated at 50 per cent by some and at 100 per cent by others. By far, the majority opinion is that probably 100 per cent of carcinoma in situ cases progress to invasive malignancy.

Those who accept carcinoma in situ of the cervix as the first morphological, recognizable stage of carcinoma of the cervix, base their judgment on morphological evidence as follows: (1) The involved epithelium meets all of the morphological criterions of the diagnosis of malignancy

except for the invasion of the stroma, (2) The neoplastic surface epithelium is identical in appearance to that which is found adjacent to areas of invasive carcinoma of the cervix, (3) The apparently noninvasive lesion may be seen in biopsy specimens from a cervix in which invasive carcinoma develops at a later time, (4) Cells exfoliated from the affected epithelial surface in the case of carcinoma in situ meet the cytologic criterion for malignancy and may appear identical to malignant cells seen in cases of invasive carcinoma, (5) The results of ultraviolet absorption, histochemical, biochemical, tissue culture, and phase contract miscroscopic studies also indicate that the involved epithelium seen in cases of carcinoma in situ is similar to, or identical with, epithelium of invasive carcinoma.[9]

SITE OF ORIGIN

It is very important that one know the exact site of malignant changes in the cervix. By knowing this, one can better solve the clinical problems of diagnosis and treatment. The site of origin of carcinoma in situ may be in the cervical canal, in the squamo-columnar junction of the cervix or transitional zone, or the portio of the cervix. One should remember that the site of origin may be multiple and that it has been repeatedly shown that the vast majority of cases of early carcinoma of the cervix arise in the cervical canal above the upper limits of the squamous epithelium.

The diagram by Fluhmann[17] (Figure 2) of 50

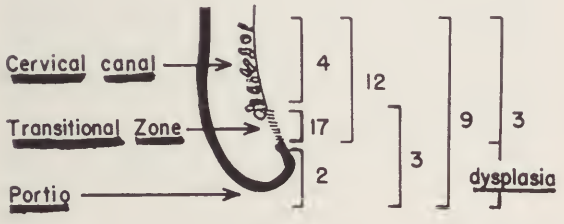


Figure 2.

cases of carcinoma in situ, showing the exact location of the lesions, clearly demonstrates these points. In his diagram he considered the transitional zone as an area 1 cm. in length above the upper limits of the squamous epithelium. In his 50 cases, the transitional zone was involved in all cases but six. Of these six cases, four involved the cervical canal solely and two occurred on the squamous epithelium of the portio. Of the 50 cases, 17 were limited to the area of the transitional zone. Of the 50 cases, 36 involved either or both, the cervical canal and the transitional zone, while only 14 cases extended over the portio.

CLINICAL FINDINGS

A normal cervix is defined as one which is covered entirely with squamous epithelium of a normal color, distal to the beginning of a cervical canal of normal diameter. In addition, one may say that the squamous epithelium should stain a dark brown color after cleansing and the application of a Gram's iodine solution. Carcinoma in situ may appear on a grossly normal appearing cervix, but as a rule this is not true. Still there is nothing grossly pathognomonic about the appearance of carcinoma in situ. Most of these cervices which contain carcinoma in situ will either reveal a few nabothian cysts, an old laceration, an irregular, roughened erosion which is often circumoral in location, an area of leukoplakia near the external os, or some other visible abnormalities. These abnormalities, however, are more likely to be associated with benign, rather than with malignant disease. Conversely, carcinoma in situ may be present in rare instances without any visible changes in the cervix.

INCIDENCE RATE

At the present time extensive surveys are being conducted in order to determine both the prevalence rate and the incidence rate of carcinoma in situ. By prevalence rate, we mean the number of cases of preclinical carcinoma of the cervix (in situ plus early invasion) that exist in the population in any given time. By incidence rate, we mean the number of cases occurring at a definite period of time, usually one year. By reviewing the statistics, the prevalence rate of carcinoma in situ has been generally determined to be between .3 to .5 per cent. The incidence rate has been determined to be approximately .2 per cent. This then means if we carry this information into the examining room, that we will find four positive smears per thousand examined on the initial smear and two positive smears per thousand examined on the second examination. Of course, this figure has to be altered upward or downward depending upon the age of the patients.

In our clinic practice, we performed 3,711 cancer smears from January 1957, until November 1961. We picked up 11 cases of carcinoma in situ; all patients with no signs, symptoms, or obvious cervical lesion. This gave a rate of one carcinoma in situ for every 336 smears performed.

AGE INCIDENCE

The highest rate of carcinoma in situ occurs between 30 and 45 years of age and the highest rate of invasive cancer between the ages of 45 to 50 years.

The two diagrams by Carter, *et al.*[10] and Pearson[11] (Figure 3) show the average age at which we may expect the peak incidence of carcinoma

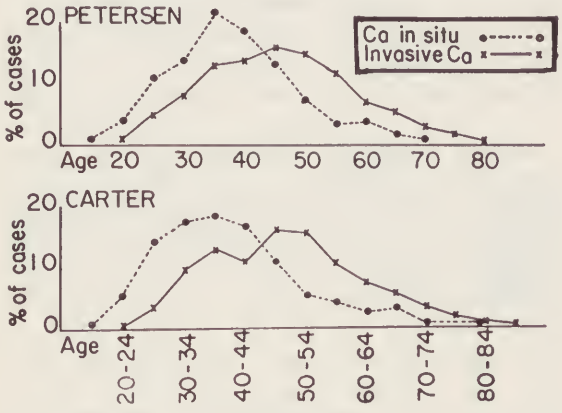


Figure 3.

in situ and invasive carcinoma. Thus we can see that carcinoma in situ is most prevalent about the age of 38 and that invasive carcinoma is diagnosed, on the average, at about 48 years of age. This gives ten years from carcinoma in situ until a diagnosis is made on the average case. These diagrams also show that carcinoma in situ can occur in the teenage group, as confirmed by a recent report by Ferguson.[12] In 1,500 positive cytology smears, 77 had occurred in patients from 19 years of age to as young as 14 years. Carcinoma in situ was found in ten cases, despite the failure of the majority of the teenagers to have the indicated biopsies.

The diagram by Wheeler and Herter[13] (Figure 4) gives the average age increases as the lesion progresses from early carcinoma in situ into early stroma invasion, into clinically unsuspected cancer, into the later stages of invasive cancer. This is depicted by an angel who gradually loses her angel characteristics and takes on the characteristics of a devil as the lesion progresses from carcinoma in situ into the invasive stages of carcinoma of the cervix. Looking at this diagram, two very important questions come to mind. What is the interval from carcinoma in situ lesion until early stroma invasion, and what is the time from early stroma invasion until actual diagnosis can be made by clinical observation of the cervix? These questions cannot be conclusively answered at the present, although it has been deducted by some that the carcinoma in situ lesion in the average case will not develop into early stroma invasion until approximately three to four years and that the early stroma invasion stage will take approximately four years alone to develop into a stage of a cervical cancer that can be diagnosed clinically.

While we are giving the average ages in which cervical malignancies occur, I feel it is appropriate that we also give the age incidence of patients who have been found to have dysplasia. This is also said to be at an average from three to six years less than that for women with carcinoma in situ.

RACIAL INCIDENCE

The racial differences seen in carcinoma of the cervix has also been found to be evident in carcinoma in situ. Carcinoma in situ of the cervix has been found to occur six times more frequently in non-Jewish than Jewish women,[14] and likewise, invasive carcinoma has been found to be five times more common in non-Jewish than in Jewish women.[15]

In a series of 235 cases reported by Friedell, *et al.*,[9] 98 per cent of their patients with carcinoma in situ of the cervix had been married and/or borne one or more children prior to the diagnosis of carcinoma in situ. The calculations on their cases has suggested that marriage was in some way responsible at the early age at which carcinoma in situ appeared and that marriage may even be a more important etiological factor in the development of carcinoma in situ than is childbirth.

CYTOLOGICAL DIAGNOSIS

Until the development of the chemical drug that will cure cancer, our best results are going to be obtained by early detection of the disease and immediate institution of the means available at the present for cancer treatment, mainly surgery and radiation. Even when a chemical drug is developed, early detection of the cancer still will be most important.

With the use of exfoliative cytology, we now have available a procedure which will aid in the early diagnosis of cervical malignancy. In early detection of cancer, the gynecologists have an advantage, especially in detecting the major pelvic malignancy, cervical cancer. Cancer of the cervix is essentially a lesion of the exterior body. The cervix can be seen, it can be palpated, higher concentrations of cells will be exfoliated from the cervix, these can be obtained quite easily and painlessly, and the cervix can be biopsied.

By the use of exfoliative cytology, almost all cervical malignancies can be picked up in the preinvasive stage at a time when almost 100 per cent are curable. In retrospect, we can say that less than half of all women who developed cervical cancer in the first half of the past decade still survive. By contrast, if every woman had had the benefit of a yearly exfoliative cytological ex-

amination, more than 90 per cent of these women would be free from cervical cancer today. This, of course, excludes those who had invasive cancer at the beginning of the study.[16] There are several techniques for obtaining cervical cells, including aspiration of the vaginal pool at the posterior fornix, aspiration of the cervical canal, or scraping of the cervix with a wooden spatula at the squamo-columnar junction. Other techniques have been suggested, but these are probably the three most widely used. In comparing the accuracy of the three techniques in aiding in diagnosing cervical malignancy, it is felt that the cervical scraping smear has proved to be considerably more accurate than the vaginal smear. Cervical aspiration smears are felt to be as adequate as cervical scraping smears, even though there are those who feel that it will determine a higher incidence of positive smears.[9] Regardless of the technique employed to obtain smears, the specimen should be spread gently, uniformly, and rapidly to prevent drying, injury to cell cluster, and the excessive thickness to the smears. It is extremely important that the smear be fixed before drying has occurred. Otherwise, there is a loss of cell definition and the reaction to staining is altered. One method of preparation is to fix the smear in equal parts of ether and 95 per cent alcohol for 5 to 15 minutes. Before the fixing solution has dried, place 1 to 2 drops of glycerin on the slide and immediately cover it with another clean glass slide. The specimen may then be sent to the pathologist. Another method is to use the cyto dri-fix—paragon. This method replaces Papanicolaou's ether, alcohol, wet fixation technique. After preparing the smear, before it dries, one will drop on 4 or 5 drops of cyto dri-fix, and tilt the slide to spread mixture over the smear. The slide is then allowed to dry for about 10 minutes. It may then be sent to the pathologist. This method eliminates both the use of ether and alcohol mixtures and the use of glycerin. The pathologist should know if the cyto dri-fix method is used because it does add an additional preparation above what is usually used for the Papanicolaou's ether, alcohol, wet fixation.

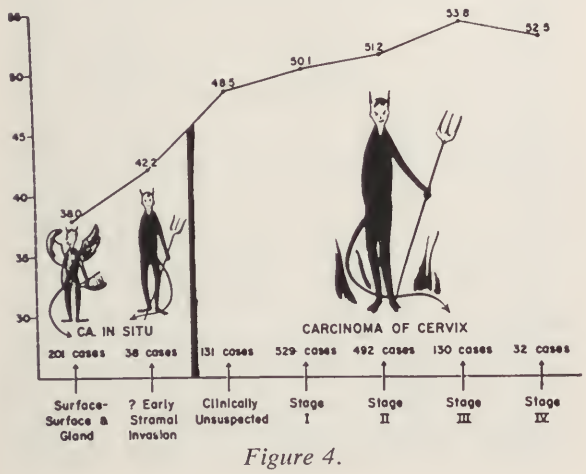


Figure 4.

The responsibility of staining, screening, and interpreting the smears belongs to the pathologist. By thorough examination of the stain smears, and studying the characteristics of the cells, including size, shape, and internal structure, the pathologist then usually classifies his smcars according to the method suggested by Papanicolaou. The class 1 report indicates that only normal cells are seen. A class 2 report indicates that some atypical cells are seen without evidence of malignant cells. Class 3 reports indicate that the cells are suggestive but not conclusive of malignancy. Class 4 reports indicate the cells are strongly suggestive of malignancy. A class 5 report indicates that cells are conclusive of malignancy.

The class 2 smear which reveals some atypical cells may be seen in associated inflammatory conditions of the cervix, in pregnancy, in the postmenopausal cervix, and in cases where there is vaginal wall infection such as in the Trichomanas. The class 3, 4, and 5 cases do not constitute a diagnosis and further procedures are needed to establish a diagnosis.

ACCURACY OF TESTS

One should realize that the accuracy of initial cervical smears is not 100 per cent. It has been estimated that one may expect about 25 per cent false positive reports and approximately a 10 per cent false negative report. The problem of false positive tests can usually be overcome by repeating the smears since the positive smear may be due to an error on the part of the cytologist. The false negative reports can usually be offset to a great extent by performing routine smears at annual or biannual examinations or at shorter intervals.[17] However, there are those that feel that the 10 per cent false negative reports can be reduced to as low as 2 per cent if one has a high index of suspicion of a premalignant lesion and by utilizing the Schiller test and the biopsy with the smear as complimentary diagnostic methods.[9]

The following report will bring out the accuracy of initial cervical smears at the Mayo Clinic as reported by Soule and Dahlin. When the smear was compared with the results of tissue biopsy, carcinoma was found in 99 per cent of the cases in which the findings in the smears were those of group 5, in 88 per cent of the cases in which the smears were of group 4, and in 53 per cent in

which they were of group 3. In all patients who were investigated because of some atypicality in the cervical smear, 70 per cent were found to have carcinoma.[18]

Cytologists are gradually becoming convinced that it is possible by an examination of exfoliative vaginal cells to distinguish between dysplasia, carcinoma in situ, and invasive cancer, as recently reported by McKay and others.[19, 20] This refined application of cytology is not universally available. This method of differential counting of large and small neoplastic cells at intervals is most likely an accurate indication of relative changes in areas and therefore, a safe way to follow patients suspected of harboring carcinoma in situ. From a practical standpoint, this method seems rather relatively safe to follow patients with known dysplasia for determining how often this lesion develops into carcinoma in situ.

Attempts are being made by cytologists to differentiate by smears the three cervical lesions, basal cell hyperplasia, reserve cell hyperplasia, and dysplasia. As of yet, no specific criterion has been accepted for this differentiation and at best, these lesions will show up possibly as a class 3 Papanicolaou smear.[21]

INVESTIGATIVE PROCEDURES

Once a positive smear has been received one must attempt to locate the lesion and find out the exact histological character of the lesion or lesions. There are various procedures that have been used in this investigative work, namely the punch biopsy, either single or multiple, the use of the Schiller test, use of colposcopic examinations, endocervical curettage, uterine curettage, and conization of the cervix. There are some who use both the cytological smears and the biopsy with the Schiller test[9] and colposcopic examinations[22] to complement each other and feel that it results in the recognition of some cases which are missed when only one of the procedures is used alone.

Several of these procedures will be discussed in further detail, namely the punch biopsy, the use of the Schiller test, the colposcopic examination of the cervix, endocervical curettage, and conization of the cervix.

PUNCH BIOPSY

The punch biopsy should be made at the squamo-columnar junction and the biopsies should be multiple. These biopsies may be made with or without the aid of the Schiller solution. One should remember that a punch biopsy is indicative only of the tissue removed and not of the surrounding tissue. It has been shown that when punch biopsies are used as the sole means of diagnosis and basis for treatment, that if these are followed by removal of further tissue, namely by conization, as many as 6 to 30 per cent of those diagnosed by a punch biopsy may show invasive carcinoma.[23] Obviously, the more biopsies taken, the less invasive carcinomas will be missed. I feel that the primary use of a punch biopsy is to use it early in the investigative procedure when one sees grossly what appeared as an obvious lesion. Then if the tissues show obvious invasion, the lesion is classified as stage 1. No further diagnostic procedures are necessary, and treatment can be instituted immediately. On the other hand, if one does random biopsy procedures with no obvious lesion presenting, and if the report comes back as negative, or dysplasia, or carcinoma in situ, then further diagnostic procedures still have to be carried out.

THE SCHILLER TEST

This test consists of the application of Gram's iodine solution to the uterine cervix. This solution combines with the glycogen normally found in the stratified squamous epithelium covering the exocervix, resulting in the epithelium staining a deep mahogany brown within half a minute. If, for any reason, there is less than the normal amount of glycogen in the superficial layers of the epithelium, a corresponding small amount of iodine will be taken up and the color of the stained epithelium will range from light yellow to brown. If there is no glycogen present in the epithelium, it will not stain and will appear to the observer as it did before the application of iodine. It is the failure of apparently normal or near normal epithelium to stain that is the important diagnostic feature, and this nonstaining is referred to as a positive Schiller test. One should remember that the epithelium which does stain usually reverts back to a normal appearance within a few minutes.

This test is of particular value in suggesting sites for biopsy, especially in a cervix that is relatively free of erosion or other abnormalities. The majority of Schiller positive areas will be found to be benign lesions. The real importance of the test lies in the fact that it is a means of locating the site for biopsy. Among some of the conditions that will not stain when using the Schiller test are the following: columnar epithelium which covers an area of eversion or erosion, areas of leukoplakia, areas of parakeratosis or keratosis, areas of cervicitis, areas of cervical ulceration from either Trichomonas or Monilia infections, and areas over nabothian cysts where the overlying epithelium has been attentuated. The important

areas that will not stain on using the Schiller test are those which are showing malignant changes. Classically, the malignant surface epithelium of carcinoma in situ or invasive carcinoma contains relatively little glycogen. Therefore, these areas take up little or no iodine and the area fails to stain the typical mahogany brown. One should mention that there are reports which have shown the presence of cells in an occasional invasive or in situ carcinoma which possess large amounts of glycogen. In these cases, the malignant epithelium may stain enough to make the test equivocal or even appear to be stained like normal epithelium. Thus, the Schiller test is used by some in determining what areas should be biopsied on a relatively normal appearing cervix. By others, it is used to determine what extent conization should be done. And others use it routinely when doing complete hysterectomies for carcinoma in situ. By using it in conizations and in indicated hysterectomies for carcinoma in situ, one can be sure that all abnormal staining epithelium is removed for either diagnostic or therapeutic purposes.[9]

COLPOSCOPIC EXAMINATION

The colposcope is an instrument used to visualize the cervix under a magnification of 10 to 40 times. With this instrument it is possible to differentiate between normal, squamous, and columnar epithelium, and atypical epithelium such as seen in erosion and early carcinoma. Although the latter claims have been made many times, it appears that actually the greatest service of the colposcope has not been to recognize carcinoma directly, but to identify small, suspicious areas for microscopic studies by means of biopsy specimens. It should be accepted as a competent method of inspection of the cervix which supplements the cytologic examination and biopsy. It appears that the combined usage of the two methods may yield a slightly higher precentage of diagnosis in early carcinoma than either examination alone.[24]

ENDOCERVICAL CURETTAGE

This is a procedure that is occasionally used in the office or outpatient clinic. It is a somewhat tedious procedure, it has to be done by a person with much experience, and much effort must be exerted to collect all of the small fragments of tissue obtained from the endocervical scrapings, including blood clots which are then temporarily fixed and submitted to the pathologist. There are those who feel that multiple biopsies and endocervical curettage performed in outpatient procedures will permit accurate evaluation of the extent of the lesion. By using this procedure, they feel that the diagnosis of invasive carcinoma will be missed only in a rare case, and in these there will only probably be microscopic focal stromal invasion. They feel in such cases that total hysterectomy which had been performed for carcinoma in situ had been found to be adequate therapy.[9]

CONIZATION OF THE CERVIX

A cone biopsy is the most reliable approach to a correct diagnosis of a cervical malignancy. It is a complicated procedure with occasionally unfortunate consequences. The following procedure is recommended for obtaining a cervical conization. Care should be taken during vaginal preparation so that the cervical epithelium is not traumatized or destroyed. The tenaculum should be placed well away from the squamo-columnar junction and the area to be coned. The cervix may be stained with Lugol's solution. By doing this, one will be able to include all areas in the cervical cone that do not stain. The conization should be done before the cervical canal is dilated so as not to destroy the surface epithelium of the cervical canal. A small bladed knife is as good as any instrument for obtaining the conization. The circumference of the cone should be close to the periphery of the portio and the apex at the internal os. If bleeding is troublesome, it can usually be controlled by placing sutures on either side of the cervix and at times sutures in the anterior and posterior lips of the cervix. We do not cauterize areas from which a cone was obtained. The cone specimen is then submitted to the pathologist where as many as five to twelve sections are performed. Serious complications can occur as a result of conization. Serious bleeding may occur at the time of the conization or postoperatively. Cervical stenosis also may develop postoperatively. Bleeding at the time of surgery can be controlled by sutures and with the aid of a vaginal pack which we may leave in from 24 to 48 hours. Periodic office dilatations of the cervix during the three months postoperatively prevents possible cervical stenosis. We always do a curettement at the time of conization of the cervix, but this follows the conization procedure.

DIAGNOSIS

In patients with a class 3, 4, or 5 Papanicolaou smear report, all efforts should be directed toward determining the real nature of the cervical lesion. Our procedure has been to use the punch biopsy in those cases where we felt that an obvious lesion could be seen. The punch biopsy may be complemented with the use of the Schiller test. If the punch biopsy of the apparently obvious lesions

reveals invasive carcinoma, no further diagnostic procedures are necessary. If the biopsy reveals negative tissue or dysplasia or carcinoma in situ, then we proceed with the use of conization of the cervix. In the absence of an obvious lesion on the cervix, and this will be present in the majority of the cases where we obtain a class 3, 4, or 5 Papanicolaou smear report, we feel that a conization of the cervix is the most reliable approach towards making a correct diagnosis.[25] This type of specimen gives one a large portion of the portio of the cervix and the total length of the cervical canal for histological examination. This is important because the cervix in various areas may show various degrees of dysplasia, areas of carcinoma in situ, and areas of minimal invasion. The conization specimen is also preferred because the early lesions may be exceedingly small and most often located above the squamo-columnar junction. And consequently, they may be easily missed on random biopsies from the portio of the cervix.

In the obstetrical patient who receives a report of a class 3, 4, or 5 Papanicolaou smear, the diagnostic procedures to be followed are similar to those followed in the gynecological patient, except for several exceptions. Any suspicious appearing lesion is biopsied, and if it reveals invasive malignancy, no further diagnostic procedures are necessary. If the biopsy is negative then a conization must be performed. A conization should not be done in an obstetrical patient during the first three months because if she should abort during the first trimester she might blame the ring biopsy. The best time for a conization procedure is after the third month of pregnancy and before the 35th week of pregnancy. Because of the possibility of excess blood loss in a pregnant patient, the cervix should be injected with 100 to 300 cc. of a saline adrenalin solution and the conization should include the lower one-half to two-thirds of the cervical canal. It may also be advisable to place some of these patients on progesterone and stilbesterol. If it is not feasible to do a conization of the cervix during the pregnancy, it should be done at a suitable time after delivery.[26]

TREATMENT

Dysplasia. What is the recommended treatment of this type of lesion? The answer isn't simple and one may find support for any type of treatment in the literature. Hysterectomy is not the routine answer, especially since there is general agreement that half of these cases resolve spontaneously. Conization may be a good form of treatment because it is not only therapeutic in most instances, but gives additional diagnostic value. This would certainly not be the end of treatment because in such a patient you would be inclined to follow her with smears indefinitely, either annually or biannually. The mode of treatment in cases with dysplasia is influenced greatly by the patient's age, marital status, the number of pregnancies she has had, and whether there is need for other types of pelvic surgery.

Carcinoma in situ. In patients in whom preinvasive carcinoma has been histologically proven, the treatment of choice is a complete hysterectomy. At least 2 to 3 cm. of the vaginal cuff should be removed. The exact amount to be removed can be further aided by performing the Schiller test at the time of surgery. The ovaries do not have to be removed and radiation is not indicated in treatment.[27] The hysterectomy can be done either abdominally or vaginally. Quite frequently these patients are in need of both cystocele and rectocele repair and it has been our policy to do vaginal hysterectomies and anterior and posterior repairs when indicated. When a pathologist is available to read frozen sections, the patient can be prepared for and the gynecologist can proceed with the indicated treatment after the coned cervix is examined. By making multiple sections through the coned cervix, the pathologist will be able to tell if cancer is present and what is its extent. With the report of carcinoma in situ, one may then proceed with the indicated surgery. In those cases in which there is no evidence of cancer, either intra-epithelial or invasive, and in the presence of symptomatic prolapse along with symptomatic cystocele, rectocele, and relaxed vaginal outlets, we have proceeded with a vaginal hysterectomy, anterior and posterior repairs.

A young patient who desires children and is found to have an intra-epithelial carcinoma, presents a problem. It would be our policy to tell these patients that they have a lesion which is not cancer in the usual sense, but may develop into invasive cancer in the course of her lifetime. They should be told that there is a calculated risk and no one has any way of telling when the lesion will become invasive and that normally the preferred treatment is a complete hysterectomy. The average patient will probably want a complete hysterectomy. If the patient elects to have conservative treatment because of her desire for children, then several criterion must be met. At the time of the initial conization, it must be demonstrated by intensive histological search that probably the whole lesion has been removed. The patient should be cooperative, understand the problems, and be willing to accept the risks. She

must plan to become pregnant in the immediate future and she must be willing to be followed at regular intervals by examinations and vaginal smears at least every three to four months.

In the obstetrical patient in whom a diagnosis of intra-epithelial carcinoma has been made, at an adequate time after delivery a complete hysterectomy should be performed.

Possible, questionable, or minimal invasion. The diagnosis of invasion in these border-line cases is no easy matter from the pathologist's viewpoint. In patients with possible, questionable, or early minimal stromal invasion, a good adequate total hysterectomy should be sufficient. If a hysterectomy has been done and in retrospect tissue specimens show more than minimal invasion, then postoperative x-ray therapy as well as radium therapy to the vaginal vault is recommended.

Invasive cancer. In patients in whom invasion is more than early minimum, treatments should be as in a stage 1 malignancy, i.e. intracavity radium and deep x-ray therapy.

PROGNOSIS

Patients can be assured that if their cervical lesions are picked up in the intra-epithelial carcinoma stage, that their cure rates should approach 100 per cent.

SUMMARY

Invasive cervical cancer develops from apparently normal epithelia after passing through several stages. On initial smears one out of every 250 females will be found to have a silent malignancy. All females should have cytologic smears included in their pelvic examinations, regardless of age. Positive cytology smears followed by indicated diagnostic procedures will discover almost all cervical lesions in the carcinoma in situ stage.

By doing a complete hysterectomy with removal of 2 to 3 cm. of vaginal cuff, the cure rate approaches 100 per cent. If all females are given the advantage of a yearly smear, invasive cervical malignancy will become a preventable disease and we will eradicate the second most frequent female malignancy. ★★★

743 Lynn Street

REFERENCES

1. Schottlander, T., and Kermauner, F.: Zur Kenntnis des Uterus-karzinoms: Monographic Studie uber Morphologic, Entwicklung, Wachsturn, nebst Beitragen zur Klinick der Erkrankung, Berlin, S. Karger, 1912.
2. Papanicolaou, G. N.: New Cancer Diagnosis, in Proc. of the Third Race Betterment Conference, Battle Creek, Mich., 1928, p. 538.
3. Papanicolaou, G. N., and Traut, H. F.: The Diagnostic Value of Vaginal Smears in Carcinoma of the Uterus, Am. J. Obst. & Gynec. 42:193-206, 1941.
4. Willis, R. A.: Mode of Origin of Tumors; Solitary Localized Squamous Cell Growths of Skin, Cancer Res. 4:630-644, 1944.
5. McKay, D. G.; Terjanian, B.; Poschyachinda, D.; Younge, P. A., and Hertig, A. T.: Clinical and Pathological Significance of Anaplasia (Atypical Hyperplasia) of the Cervix Uteri, Obst. & Gynec. 13:2-21, 1959.
6. Peckham, Ben, and Greene, R. R.: Follow-up on Cervical Epithelial Abnormalities, Am. J. Obst. & Gynec. 74:804-815, 1957.
7. Reagan, J. W.; Hicks, D. J.; and Scott, R. B.: Atypical Hyperplasia of Uterine Cervix, Cancer 8:42-52, 1955.
8. Galvin, G. A.; Jones, H. W.; TeLinde, R. W.: The Significance of Basal-Cell Hyperactivity in Cervical Biopsies, Am. J. Obst. & Gynec. 70:808-821, 1955.
9. Friedel, Gilbert H.; Hertig, Arthur T.; Younge, Paul A.: Carcinoma in Situ of the Uterine Cervix, Springfield, Ill., Charles C Thomas, 1961.
10. Carter, B., *et al.*: Clinical Problems in Stage O (Intra-epithelial) Cancer of the Cervix, Am. J. Obst. & Gynec. 71:634, 1956.
11. Petersen, O.: Spontaneous Course of Cervical Precancerous Conditions, Am. J. Obst. & Gynec. 72:-1063, 1956.
12. Ferguson, J. H.: Positive Cancer Smears in Teenage Girls, J.A.M.A. 178:365-368, 1961.
13. Wheeler, J. D., and Hertig, A. T.: The Pathologic Anatomy of Carcinoma of the Uterus (I. Squamous Carcinoma of the Cervix), Am. J. Clin. Path. 25:-345-375, 1955.
14. Anderson, A. F.: Latent Cancer of the Cervix, J. Obst. & Gynaec. Brit. Emp. 60:353-362, 1953.
15. Hertig, A. T., and Younge, P. A.: A Debate: What Is Cancer in Situ of the Cervix? Is It the Preinvasive Form of True Carcinoma? Am. J. Obst. & Gynec. 64:807-815, 1952.
16. Lund, Curtis J.: An Epitaph for Cervical Carcinoma, J.A.M.A. 175:98, 1961.
17. Fluhmann, Fredric C.: The Cervix Uteri and Its Diseases, Philadelphia, W. B. Saunders Company, 1961.
18. Soule, E. H., and Dahlin, D. C.: Cytodetection of Preclinical Carcinoma of the Cervix: Ten Years' Experience with Initial Screening and Repeat Cervical Smears, Proc. Staff. Meet. Mayo Clin. 34:1-8, 1959.
19. Takeuchi, A., and McKay, D. G.: The Area of the Cervix Involved by Carcinoma in Situ and Anaplasia (Atypical Hyperplasia), Obst. & Gynec. 15:-134-145, 1960.
20. Reagan, J. W., and Hamonic, M. J.: The Cellular Pathology in Carcinoma in Situ (A Cytohistopathological Correlation), Cancer 9:385, 1956.
21. Symposium on Probable or Possible Premalignant Cervical Lesions, IV. Reserve Cell Hyperplasia, Basal Cell Hyperplasia and Dysplasia, Acta Cytol. 5:133-152 (Mar.-April) 1961.
22. Wespi, H.: Early Carcinoma of the Uterine Cervix, New York, Grune & Stratton, 1949.
23. Symposium on Probable or Possible Malignant Cervical Lesions—Carcinoma in Situ, I. Histology of Carcinoma in Situ, Histochemistry of Carinoma in Situ, Acta Cytol. 5:359-68 (Sept.-Oct.) 1961.
24. Salzer, R. B.: Colposcopy; An Aid in the Detection of Early Cancer and Precancerous Conditions of Cervix, Obst. & Gynec. 13:451-456, 1959.
25. Waddell, Kenneth E.; Welch, J. S.; Decker, D. G.: Postive Cytologic Fndings in Preclinical Squamous Cell Epithelioma of the Uterine Cervix: Surgical Management, Surg. Clinics of North America, 41:-1025-1031, 1961.
26. Ayre, J. Ernest, and Scott, J. W.: Carcinoma in Situ in Pregnancy, J.A.M.A. 176:102-105, 1961.
27. TeLinde, R. W.: Carcinoma in Situ of the Cervix, Postgrad. Med. 29:458-464, 1961.

Radiologic Seminar II: Pulmonary Embolism with Infarction

ELMER J. HARRIS, M.D.
Jackson, Mississippi

SUDDEN AND UNEXPLAINED death frequently is due to massive pulmonary embolism. Nonfatal pulmonary embolism is important to recognize because it may be premonitory of an impending fatal attack. The diagnostic accuracy of pulmonary embolism depends upon careful correlation of clinical, radiographic, and electrocardiographic criteria.

There is no pathognomonic radiographic picture of pulmonary embolism or infarction. No change may be observed in small occlusions. In case of large vascular occlusions, there may be engorgement of the pulmonary vessels at the hila with ischemia of the lung fields peripheral to the occlusion. The typical radiographic picture, when infarction ensues, begins 12 to 24 hours after the embolism. At this time, one or more densities of variable size appear in the lower lung fields, in conformity with the usual sites of impaction of the emboli. The densities may be rounded, linear, wedge-shaped, or triangular, and may be indistiguishable from pneumonia, atelectasis, or other types of consolidation. Minimal to moderate pleural effusion is frequent, and the diaphragm may be elevated. The lung shadows persist for variable periods of time and have been visible for as long as nine weeks. New areas may appear in spite of antibiotic treatment. Healing is usually prolonged and may be complete or may result in coarse linear scars.



Figure 1. Note increase of density at the right base giving the appearance of pneumonitis. Film was taken Dec. 21, 1961.

CASE REPORT

A 29-year-old woman developed spiking fever, pleuritic right chest pain, cough with bloody expectoration, all within 48 hours following delivery on Dec. 15, 1961. A chest film on Dec. 21, 1961, showed a minimal increase of density at the right base indistinguishable from pneumonia (Figure 1). A follow-up film three days later (Figure 2)

Sponsored by the Mississippi Radiological Society.
From the Department of Radiology, Mississippi Baptist Hospital.

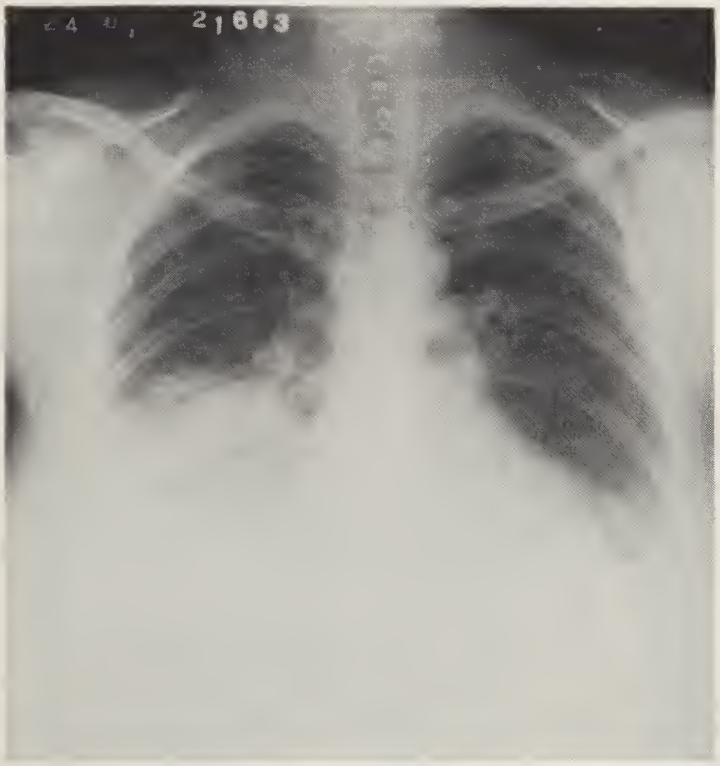


Figure 2. In spite of antibiotic therapy, note the progressive extension of the disease with a more dense consolidation, with diaphragmatic tenting and effusion, on a film taken Dec. 24, 1961.

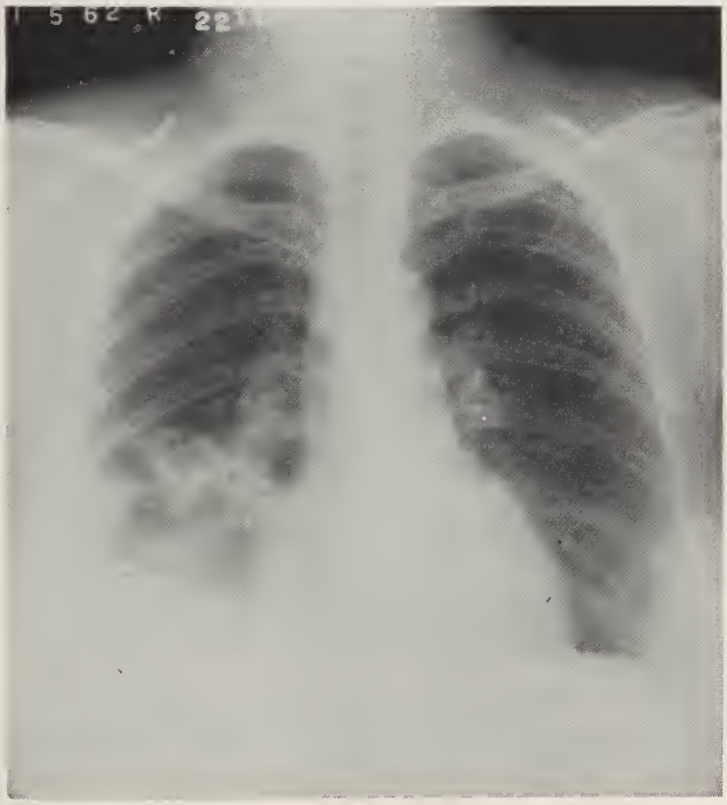


Figure 3. A cavity is well demonstrated on this film taken Jan. 3, 1961.

Radiologic Seminar II, the second in a series of regular monthly features, concerns pulmonary embolism with infarction. The author explains that an accurate diagnosis of pulmonary embolism depends upon careful correlation of clinical, radiographic, and electrocardiographic criteria. He describes in detail the typical radiographic picture of pulmonary embolism and infarction, and presents a case report. Sponsored by the Mississippi Radiological Society, the seminar series will present the radiologic aspects of a variety of clinical entities with emphasis upon diagnostic and technical considerations. Preparation of individual features will be rotated among the members of the society.

showed dense consolidation with tenting of the right leaf of the diaphragm and minimal fluid collection. Cavitation was obvious as early as Jan. 3, 1962 (Figure 3). The clinical course improved and the patient was discharged with antibiotics and remained afebrile and essentially asymptomatic. On March 16, 1962, a chest film showed that the lungs were essentially clear but on bronchography the next day persistent cavitation was demonstrated. Surgical resection was carried out. In this case the basic pathology was due to septic embolus with pulmonary infarction and cavitation. In 550 infarcts seen at autopsy by Levin *et al.*, 23 resulted in abscess formation, with only three being diagnosed during life. ★★★

1190 North State Street

REFERENCES

1. Gaylord, C.: The Sequence of X-ray Changes in Pulmonary Embolism and Infarction, Postgrad. Med. 23:132-139 (Feb.) 1958.
2. Hinshaw, H. C., and Garland, L. H.: Dis. Chest, Philadelphia, W. B. Saunders Company, 1956, pp. 366-376.
3. Levin, L.; Kernohan, J. W.; and Moersch, H. J.: Pulmonary Abcess Secondary to Bland Pulmonary Infarction, Dis. Chest, 14:218, 1948.
4. Parker, B. M., and Smith, J. R.: Pulmonary Embolism and Infarction, Am. J. Med. 24:402-423 (March) 1958.

Clinicopathological Conference XXIX

Conducted by the Department of Pathology
University of Mississippi School of Medicine
Jackson, Mississippi

The patient in the CPC for June is a 53-year-old Negro man whose admission symptoms included neurological manifestations, anorexia, fever, and weight loss. For the six months prior to admission he had had a rather rapidly progressive, downhill course.

Discussers are Drs. Fred Allison, Jr., Robert D. Sloan, James R. Cavett, Forrest T. Tutor, J. R. Snavely, Joel G. Brunson, and Carl G. Evers.

Dr. Fred Allison, Jr.: "This 53-year-old Negro man was admitted on Dec. 13, 1960. Although I recall having some contact with his management, I don't recall what he had. The illness was of six months' duration and characterized by weakness with progressive loss of weight. Thereafter he slowly deteriorated, and about eight weeks before hospitalization he developed a "cold" with fever and nasal discharge. Apparently, these symptoms persisted of mild severity until about six weeks before hospitalization when anorexia became more prominent and was accompanied by constipation and a sense of fullness of the abdomen and lower anterior chest. These complaints persisted until about five weeks before admission to the hospital when there developed a severe, constant, dull pain in both flanks. There was no mention of urinary tract symptoms. Fever was again present and he continued to lose weight.

"About three weeks before hospitalization he experienced difficulty in walking because of weakness and shortly thereafter developed paralysis of the lower extremities. At the same time there was loss of sensations over the lower trunk and associated incontinence of the urinary bladder. We do not know whether or not anal sphincter incontinence was present. Apparently at this time a urinary catheter was installed. Presumably his condition was stable until the day of admission to the hospital when the neurological problem worsened as noted by weakness of the left and right arms. Weakness of the left side was greater than on the right. Thus far, then, we have a man with an ill-defined, rather rapidly progressive, downhill course with neurological manifestations, anorexia, fever, and weight loss.

"On examination, there was a body temperature of 101 F., a pulse of 130, a blood pressure of 98/65. The patient appeared chronically ill. It is significant that he was oriented, although quite weak, and there was no evidence of meningismus. No enlargement of lymph nodes was found and there were no significant skin lesions, but the patient was quite dehydrated. There was tenderness over the costovertebral angles bilaterally with point tenderness over the thoracolumbar spine, but we are not told the exact location. The right testicle was atrophic. The neurological findings were spectacular in that there was a dilated right pupil which reacted only slightly to light. I hope our neurologist can help us here. A classical Argyll-Robertson pupil, which this was not, is constricted and does not respond to light but to accommodation. The remainder of the neurological examination revealed flaccid paralysis of both legs. There was atrophy of calf and thigh muscles bilaterally, and there was a total sensory loss below the level of T-11. It disturbs me that the patient had some atrophy of the intrinsic muscles of both hands and occasional muscular fasciculations were seen in both arms. This suggested that the neurologic lesion was not circumscribed but extended over several dermatomes. To go along with such a possibility there was also weakness of the left deltoid, triceps, and biceps muscles, but no paralysis.

"These findings indicated that there was a cord lesion at approximately T-10 or 11 which effec-

tively cut off neurologic communication with the lower half of the body. The flaccidity and lack of spasticity were in keeping with a gradual compressive lesion of the cord. I am not sure how this localized lesion could be related to the neurological abnormalities found in the upper extremities. At this point then, it seems that this patient had a chronic, progressive disease with nonspecific symptoms initially suggestive of infection followed by localized central nervous system signs pointing to the spinal cord. A catastrophic event had obviously occurred.

"At this time the x-rays will be extremely helpful."

X-RAY FINDINGS

Dr. Robert D. Sloan: "A recumbent chest film appeared essentially normal, save for some widening of the mediastinal contour that could be explained on the basis of moderately dilated and torturous thoracic aorta. The lung fields were grossly clear. Dorsal and lumbar spine films revealed partial destruction of the bodies of T9, T10, and T11, with a surrounding paravertebral soft tissue mass. There was suggestive narrowing of the interspace between T10 and T11. An abdominal film revealed no pathologic change, and in particular there was no enlargement of the spleen or liver. A myelogram was performed, and while this did not reveal a block, there was diffuse narrowing of the canal in the lower dorsal area. The pattern suggested that the disease process was mild and that the canal surrounded and compressed the cord. The area of involvement matched the lesion described on the routine spine film. Regarding a differential diagnosis, either an infectious process such as tuberculosis or a lymphoma can involve the spine and canal in this manner, as well as producing a paravertebral soft tissue mass. The only radiologic differentiation between these two possibilities relates to the status of the intervertebral disk space. In infection this area is classically involved, with resultant narrowing of the interspace, while tumor usually leaves the space intact. In the present case it was somewhat difficult to be sure about the status of the interspaces, partially due to the angulation associated with the bony destruction and partially due to technical factors. I suspect, however, that the interspaces were involved and for that reason I would have to lean more toward infection, with tuberculosis being the classical example. I would, however, only put it on a 45-55 per cent basis of infection over tumor."

Dr. Allison: "Do you think you can exclude miliary tuberculosis?"

Dr. Sloan: "There is nothing on this single recumbent film of the chest to permit a radiologic diagnosis of miliary tuberculosis."

Dr. Allison: "Thank you. I have summarized the laboratory data on the board, but they are not very helpful in trying to differentiate between infection and tumor. One must remember that this patient had an indwelling catheter, and we have good evidence for a substantial urinary tract infection. A proteus organism was recovered from the urine and an active pyelonephritis must be considered.

"The electrolyte values were of interest in that the serum sodium was 130 mEq. with a potassium of 5.1 mEq. This suggests that the low blood pressure may have reflected involvement of the adrenal gland with a mild hypoadrenalism. This point should be kept in mind in view of his subsequent course.

"There may be other, more exotic infections, but syphilis must be mentioned since there was a positive VDRL. In view of the hyperglobulinemia this may be a red herring. The spinal fluid proteins were elevated which would go along with any irritative process within the spinal canal, i.e. either a tumor or an infectious process. The spinal fluid sugar was normal, and there were very few cells present. This finding is against a substantial meningitis due to malignancy, tuberculosis, or fungus infection. One would thus have to conclude that most of his trouble was probably extradural and represented pressure from the exterior.

"Since the examination of the bone marrow gave negative results and there were no palpable nodes or enlargement of the spleen, a lymphoma seemed unlikely. To resummarize, it would appear that this patient had a generalized granulomatous process with a recent central nervous system complication of catastrophic proportions. I would like to ask Dr. James R. Cavett for Dr. Richard W. Naef's opinion about the diffuse involvement of the cord with associated eye signs. It seemed that most evidence of the disease was remote from the brain stem."

NEUROLOGIST'S REPORT

Dr. James R. Cavett: "I am speaking for Dr. Naef, and I certainly don't want to misquote him. As far as the Argyll-Robertson pupil is concerned, Dr. Naef felt that the description of the pupil was somewhat incomplete and would not fit the description of a typical Argyll-Robertson pupil. He said that he would probably discount this finding. The initial history in the course of the disease as recounted is consistent with polyneuritis. Such

a polyneuritis can occur with tuberculosis, especially when there is miliary infection. It is seen also in carcinoma or lymphoma without direct involvement of the nerves. The reason for this is not clear. It is seen most commonly in carcinoma or lymphoma which is very far advanced, and it may result from the extreme debility or cachectic state of these individuals, or it may be due to some sort of toxic state. Nevertheless, the patient's history and course is certainly consistent with polyneuritis.

"The sudden exacerbation of symptoms, that is the development of paraplegia and within the next day or two additional involvement in the arms, could be due in Dr. Naef's opinion to disease at the T-10 or 11 area which is demonstrated on x-ray. He felt that the process could be expected to extend upward in the canal and interfere with the cervical cord by pressure or it could interfere with the arterial blood supply to the cervical cord which would result in the abnormalities in the arms. He felt that this was a polyneuritis probably secondary to tuberculosis, and he felt that the lesion at T-10 is due to a tuberculous infection with cord pressure."

HOSPITAL COURSE

Dr. Allison: "Thank you, that is very helpful. This man's hospital course was hectic to say the least. Efforts were made to control the urinary tract infection with antibiotic therapy, but very late in the illness a positive blood culture indicated that urinary tract infection still represented a serious problem. It may have contributed materially to his demise. The patient apparently resisted efforts to obtain biopsy tissue for a working diagnosis. For this reason, specific therapy directed to the granulation tissue eventually found at biopsy was delayed. It is probable that the final event was either one of endotoxin shock or bacteremia superimposed on a hypoadrenal state. The associated activity of the neurosurgical maneuver led to a cardiac arrest. Dr. Tutor, do you wish to comment on this patient's problem?"

Dr. Forrest T. Tutor: "I did not see the patient, but I do know the story on him."

Dr. Allison: "Do you feel that you can comment even though you know something of the findings?"

Dr. Tutor: "Yes, I would like to make a few comments. We agreed with the consensus that this was cord compression, but we were very reluctant to even attempt decompression because this patient had had total paraplegia for three weeks. In long standing paraplegia, decompression of the cord does not result in any improvement of the paraplegia. In order to obtain any useful return of cord function from decompression the compression must be relieved within a few hours after total paraplegia, usually a matter of five-six hours. In physiological or anatomical division of the cord no useful return is to be anticipated.

"However, we were consulted in this case in order that a diagnostic biopsy might be carried out. We chose to do this procedure under local anesthesia because of the patient's severely ill condition. I understand that, because of pain associated with the operation, there was considerable thrashing about of this patient on the operating table. After the biopsy had been obtained, as the wound was being closed, the patient suddenly gasped a couple of times and expired. I agree with everything that has been said thus far as to etiological consideration and have nothing further to add."

Dr. Allison: "Dr. Snavely, do you wish to comment?"

Dr. J. R. Snavely: "I don't have a thing to add to your expert discussion except to re-emphasize what Dr. Tutor said about the decompression. If it is not done very early, changes will be irreversible."

Dr. Allison: "Dr. Sloan?"

Dr. Sloan: "Shortly after surgery I recall that one of the neurosurgical residents suggested the possibility of a pulmonary embolus as a terminal event. I think that might be mentioned."

Dr. Allison: "Yes, particularly if he were suddenly active after having been quiescent prior to the time of surgery."

Dr. Tutor: "In retrospect, we felt that this might have been one situation in which general anesthesia actually might have been a safer anesthetic than a local anesthesia. The pain associated with the performance of the procedure under local anesthesia may have produced the agitation that could have released an embolus to the lungs."

Dr. Allison: "Well, Dr. Brunson, I think most all agree that the most probable diagnosis was tuberculosis of the spine with cord compression. He may well have had involvement of other organs, particularly of the adrenal glands, perhaps of the kidneys. There was also a recently acquired pyelonephritis due to infection by a proteus species with bacteremia contributing to his final episode. It was unlikely that syphilis contributed to any part of the problem."

Dr. Joel G. Brunson: "Dr. Evers will discuss the gross findings, and then we will run through



It takes no time to "whip up" dinner in a blender

How to help your patient stick to a full-liquid diet

The secret ingredient in a successful diet is acceptance. With a blender and a little imagination, it's relatively easy to prepare appetizing foods for a full-liquid diet.

Strained chicken or shrimp blended with milk makes a good "bisque"—in tomato juice it's "creole." Many patients like cottage cheese beaten into chocolate milk flavored with mint. Strained carrots go well in milk or broth, while strained fruits in fruit juice—garnished with mint or a lemon wedge—are an appealing and satisfying replacement for dessert.

Liquids should be served in colorful mugs or pretty glasses.

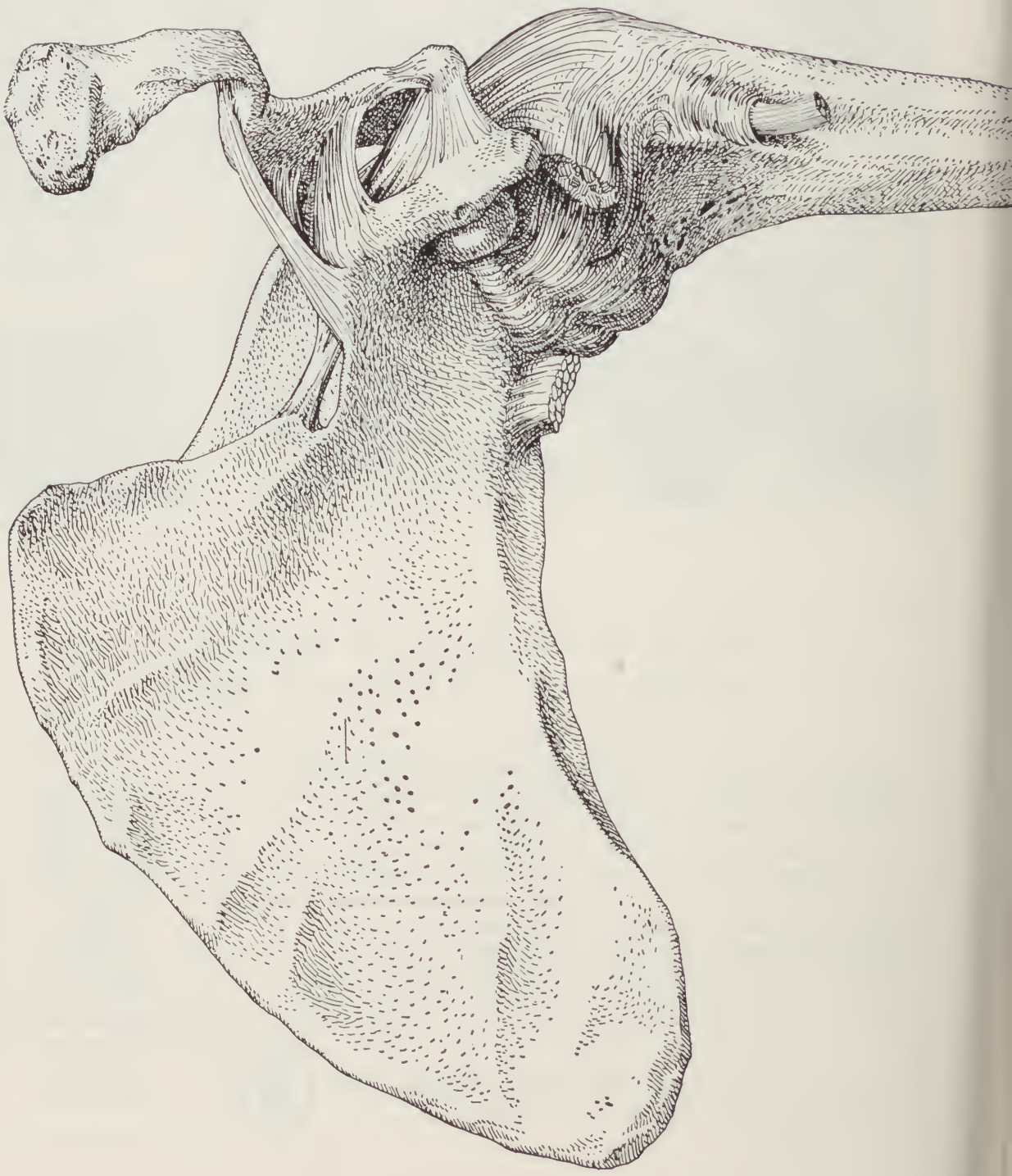


A glass of beer can add zest to a patient's diet

United States Brewers Association, Inc.

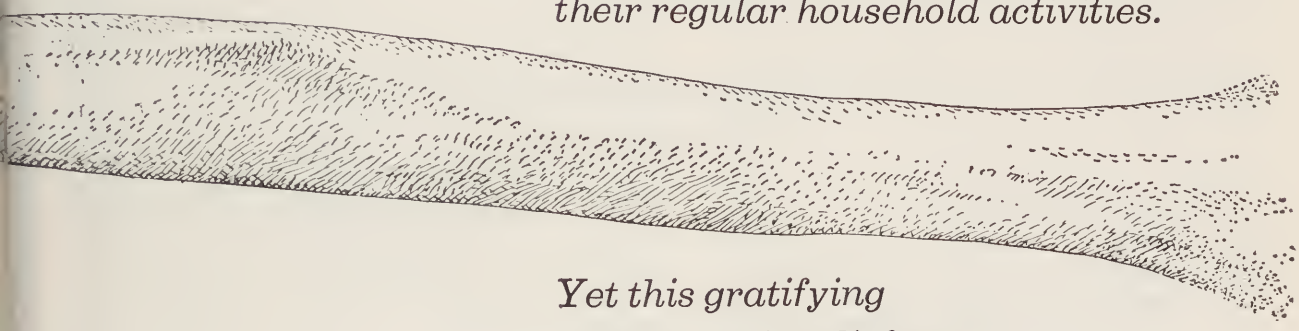
For reprints of this and 11 other diet menus, write us at 535 Fifth Avenue, N.Y. 17, N.Y.

gratifying relief fo



painful joints

With ARISTOCORT, *patients with painful, arthritic joints obtain rapid reduction of pain and inflammation, as well as substantial improvement in joint mobility. Many patients who might otherwise be confined in a state of invalidism have been able —with* ARISTOCORT*—to continue their customary livelihoods or go about their regular household activities.*



Yet this gratifying symptomatic relief may not be accompanied by severe hormonal collateral effects, such as sodium retention, edema, emotional disturbance, insomnia or voracious appetite—that may prevent patients from obtaining corticosteroid benefits.

unsurpassed for total patient benefits

Aristocort®

Triamcinolone Lederle

SUPPLIED: Scored tablets (three strengths), syrup, parenteral and various topical forms. Request complete information on Indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

Lederle

LEDERLE LABORATORIES
A Division of American Cyanamid Company
Pearl River, New York

ENDOCRINE AND PHARMACEUTICAL PRODUCTS OF QUALITY

Organon

An important announcement to physicians who prescribe corticosteroids

Organon's new technical process now makes one of the newer, most highly potent and well tolerated corticosteroids available at greatly reduced cost to your patients with allergic, arthritic or other inflammatory conditions.

This new product is being marketed under the trade name of HEXADROL, brand of dexamethasone 'Organon'. HEXADROL is now being offered to your pharmacist at a price which should make it available to your patients at a cost well within the price range of older generically prescribed corticosteroids. It is supplied as 0.75 mg. white scored tablets, in bottles of 100.

If you have been prescribing the older corticosteroids— such as prednisone, prednisolone, hydrocortisone or cortisone, and have hesitated to prescribe the newer corticosteroids because of economic consideration for your patients, you can now secure all of the clinical advantages of dexamethasone at approximately the same prescription expense. Mg. for mg., HEXADROL is approximately 6 times more potent than triamcinolone or methylprednisolone... 8 times more potent than prednisone or prednisolone... 28 times more potent than hydrocortisone...and 35 times more potent than cortisone.

If you are now prescribing the newer corticosteroids— such as triamcinolone, betamethasone, paramethasone or another brand of dexamethasone, because of reduced risk of sodium and fluid retention, potassium depletion, or disturbance of glucose metabolism – you can obtain all of these benefits with HEXADROL, at marked savings – yet with complete assurance of unsurpassed quality and therapeutic effect.

For complete information concerning HEXADROL— including indications, dosage, precautions and side effects – or if you would like a trial supply, ask your Organon Representative, or write to: Director, Professional Services, Organon Inc., West Orange, N. J.

'Organon'—your professional assurance of quality
Hexadrol®—your patient's assurance of economy!

some of the complicated lesions in this particular case. Dr. Evers?"

AUTOPSY REPORT

Dr. Carl G. Evers: "The patient's sudden gasping for breath and expiration may be explained by a massive pulmonary embolus which was lying within the bifurcation and completely occluded the right pulmonary artery. It came from the right leg which measured 2 cm. more in circumference than the left, and the right femoral vein did contain a thrombus, which, on manipulation of the leg, dislodged into the inferior vena cava.

"As far as the other lesions, the external examination has been pretty well covered in the protocol. The chest cavities did not contain fluid. The lungs were well expanded and the only lesion present in the chest cavity was in the right lung, where the medial portion of the right lower lobe was adherent to the lateral aspect of the vertebral column. It could not be dissected free except by sharp incision. This was seen to be a lesion which involved the peripheral 2 to 3 cm. of this aspect of the right lung and was a very irregular infiltrative process, in some areas being completely consolidated and in other areas being edematous and congested. There were, scattered throughout both lungs, many small calcified lesions, mostly peripheral and subpleural. There was a calcified node in each hilus but no caseation was seen.

"When the perivertebral tissue on the right side of the spinal column was incised, frank creamy pus came forth at the level of T-10, and on opening, it further extended downward to T-12 and upward to T-8. The vertebral bodies of the 9th, 10th, and 11th thoracic vertebrae were obviously involved by a destructive process which gave them a very moth-eaten appearance and which had destroyed a considerable part of the bony structure. There was also some of this creamy white material lying within the spinal cord. I assume that this took place either in the process of removing it or during the operative procedure. It was specifically mentioned that this was not present at the time of surgery. The remaining portions of the lungs were unremarkable.

"There was a lesion in the midportion of the sigmoid colon, involving about 12 cm. of its length, in which the mucosa was markedly hyperemic and discolored and the whole bowel wall involving its entire circumference was edematous. There was one area which appeared to be infarcted. The kidneys were somewhat enlarged, pale and swollen. They weighed 280 and 300 gm. respectively. There was some hemorrhage around the wall of the pelvis, but not involving the parenchyma. About half of the renal papillae were involved by some degree of necrosis, and the tips of many of the papillae sloughed out with a slight amount of pressure. This did not involve all of them and was more prominent in the right kidney than in the left. The seminal vesicles were both quite large, very firm and indurated, and surrounded by a lot of scar tissue. The brain was unremarkable grossly and on cut section no focal lesion was seen in the brain to explain any central nervous system symptoms other than the cord. The cord at the level of T-10 through T-12 was compressed and soft and in some areas obviously necrotic with some hemorrhage. Blood cultures grew out Proteus. The culture of the abscess also grew out Proteus which digested the media, and all cultures were negative for acid fast bacilli."

Dr. Brunson: "Well, we must, I think, do as Dr. Allison has done and make several diagnoses in this case. Some of these are related; some, as far as we know at the moment at least, are not related. We might say that this patient's illness is basically one of an infectious nature. We believe his major or initial symptoms are related perhaps to two infectious diseases, one in the pulmonary parenchyma with spreading to the adjacent vertebral bodies and the other associated with active pyelonephritis with secondary complications. Those two basic processes then appear to be associated with his later course of events, the development of gram-negative bacteremic shock. Finally there remains one, or perhaps more than one structural change for which we have no good explanation.

"We can begin with what we believe is an explanation of his neurologic complaints. This patient did have granulomatous disease in his lung. Microscopic sections from the lesions that Dr. Evers described showed a more or less classic tubercle with giant cells, some necrosis, a smattering of inflammatory cells, epithelioid cells, and a peripheral collar of lymphocytes. This same type of lesion was present in sections from the vertebral body. This represented then an osteomyelitis of a granulomatous nature. The only special stain which revealed anything of an etiologic nature was an acid-fast stain, which showed numerous acid-fast organisms in the granulomatous lesions. Consequently, this part of the patient's illness appeared to be related to pulmonary tuberculosis and tuberculous osteomyelitis of the vertebral column, with cord compression and the signs and symptoms related to this.

"Other portions of his illness appeared to be related to pyelonephritis. Microscopic sections of the kidneys showed numerous polymorphonuclear

leukocytes, fibrosis and 'asphyxiation,' tubular atrophy, and aggregates of lymphocytes and plasma cells. This, we think, explains his early symptoms of abdominal flank pain and his febrile episodes with nausea and vomiting.

"There remain other lesions which one should try to correlate. We believe that this patient developed gram-negative endotoxin shock. We believe further that he may have been in shock for several days in that there is some evidence to suggest that he had hypertension. This is indicated morphologically by the increased weight of the heart (450 gm.) and microscopically by the presence of numerous hyalinized periadrenal, pancreatic, and renal arterioles. It is thus possible that at the time of his admission here a blood pressure of 98/65 might have indicated a moderately profound degree of shock. Furthermore, there is some evidence to suggest that this patient had been in shock for some period of time. The adrenal gland, for example, showed a lesion which is said to be characteristic of shock of fairly long duration and this is an alteration in the zona glomerulosa, a change in which the cells become transformed into tubules, so-called glandular transformation. It is not a striking change in this case but it is present.

"The assumption that he had shock of fairly long duration might explain the lesions in the liver which involved rather extensive areas of necrosis (Figure 1). The hepatic parenchyma was preserved around the portal triads; however, in the necrotic areas there was infiltration by acute and chronic inflammatory cells. This, we believe, indicates a relative ischemia of the liver, a condition under which those liver cells in and about the central parts of the lobules undergo necrosis, while those about the portal areas, which have normally more oxygen, survive. The degree of ischemia was not severe enough to inhibit inflammation and so one has this influx of polymorphonuclear leukocytes into the dead or necrotic liver zones. This, we believe, may represent a longstanding lesion associated with shock. There is another reason to believe that this is gram-negative shock and that is the lesion found in the patient's colon. This lesion showed microscopically the presence of ischemic areas of the large bowel associated with capillary and arteriolar fibrinous or fibrinoid 'thrombi' and this is accompanied by very marked edema and infiltration by polymorphonuclear leukocytes. This particular lesion in the large bowel can be produced in the dog if the animal is given a sublethal amount of endotoxin; it can be produced in the rat and rabbit by repeated or prolonged drum shock, and it has been described in humans in whom there is good evidence of gram-negative bactcremia and shock during life.

"Now, the last lesion I wanted to mention is one that may be related to shock, albeit the evidence is not clear. It is a lesion which is said to occur predominantly in diabetics, which this patient is not, and in patients in whom there is evidence of obstructive uropathy. Now, perhaps there was some suggestion of obstructive uropathy clinically in this patient, but there was no evidence of obstruction morphologically. This lesion, which Dr. Evers described grossly, was shown microscopically to be ischemic necrosis of a renal papilla involving a bland type of necrosis (Figure 2). There is some associated inflammatory reaction about it, and this lesion was thought to develop as a result of infarction or multiple infarctions localized to the renal papillae. There is some epidemiologic evidence that this may be related to drug ingestion. For example, in Scandinavian countries where there appears to be ingestion of large quantities of phenacetin, this lesion is quite prevalent. In this country, it is fairly uncommon. The patient did not have diabetes and did not have good evidence of obstruction. It is said that this lesion is preceded by pyelonephritis so perhaps this disease in this particular case predisposed in some manner to the development of this lesion.

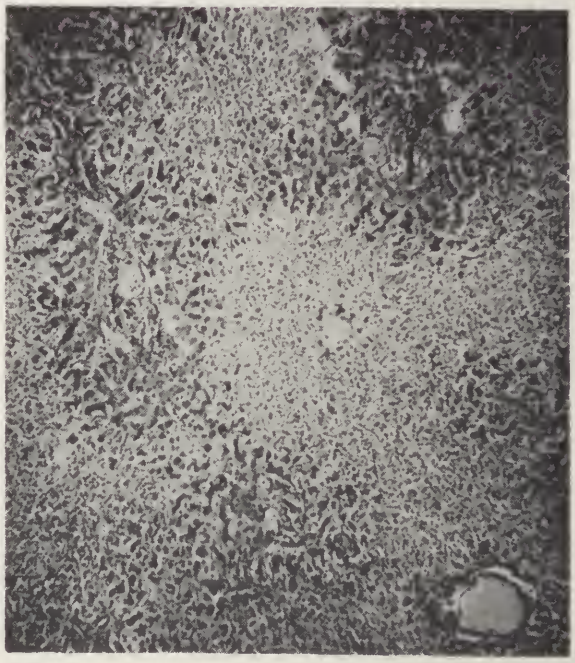


Figure 1. Hepatic necrosis secondary to shock.

"So in summary, although this is a complicated case to try to explain, it appears that this patient

had the following pathologic alterations: pulmonary tuberculosis with spread into the adjacent vertebral bodies, development of tuberculous osteomyelitis and spinal cord compression. He had an active pyelonephritis; he had evidence morphologically and culturally of gram-negative bacteremia with ensuing shock, and morphologic changes possibly related to his pyelonephritis, renal papillary necrosis. As a terminal event, massive pulmonary embolism occurred. Dr. Allison, have you any additional comments?"

Dr. Allison: "I find the concept that this man was in shock for a number of days a novel one with which I am not familiar. We were not aware of such a possibility at the time that he died. In view of these findings perhaps we should rearrange our thinking that mild shock can go on for a long period of time. This patient seems to have taken a week or so to die when most patients in shock die promptly. It is an interesting possibility that this represented the manifestations of protracted endotoxin administration. When endotoxin is given to humans therapeutically, they develop tolerance

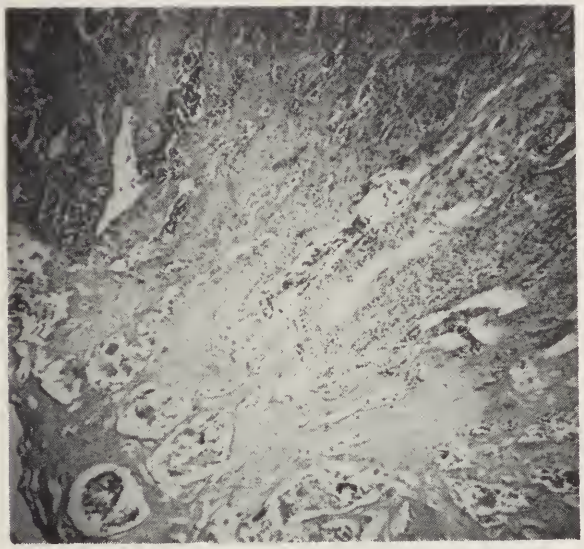


Figure 2. Ischemic necrosis of a renal papilla.

rapidly. I wonder, therefore, whether experimental information can be transposed to human disease so literally?"

Dr. Brunson: "Well, I think in all of the animal studies the administration of large quantities of endotoxin or even small quantities in a single parietal injection is not quite the same as having an active infection somewhere with production of endotoxin over long periods of time. This may explain the difference. Certainly, we cannot say dogmatically that this represents chronic shock. However, if one relates the lesions of acute shock to those of several days' duration, it would fit in fairly nicely."

Dr. Allison: "It may seem like a minor point, but couldn't one make just as strong an argument for the pulmonary tuberculosis to arise from the perispinal abscess."

Dr. Brunson: "Yes, we could. It is much easier though, at least for us, to think of inhaling tubercle bacilli with secondary spread from the lungs. Although this organism did not grow and we were not able to identify it, if it were the human type of tubercle bacilli, I would have felt better about it being pulmonary infection with consequent spread."

Dr. Allison: "Was there evidence of tuberculosis in the lower urinary tract or genitalia?"

Dr. Brunson: "No, this was nontuberculosis and looked like an old burned-out, nongranulomatous infection of some type. He did have some changes in his cord, although not as striking as one might have expected. There was some demyelinization."

Dr. Allison: "In relation to this weakness of the upper extremity the possibility of an infectious polyneuritis, was mentioned. Were any of the peripheral nerves examined?"

Dr. Brunson: "We did not get the upper portions and I can't say, but it is known, at least in other situations, that tuberculosis does cause proliferative arteritis and necrosis and this may well explain his lesion or the changes in his arms."

Dr. Allison: "Was there any evidence of diabetes mellitus in view of the finding of renal papillary necrosis?"

Dr. Brunson: "We don't know. We don't have any changes—at least morphologically."

Dr. Paul S. Derian: "May I get a word in on bony tuberculosis? Tuberculosis of adult bone may be primary or secondary, and is most common in the dorsal vertebra. The lesion begins in the centrum, anterior cortex, or epiphyseal area. The characteristics of this disease are necrosis of tissue, caseation, and abscess formation. Potts' disease, described in 1779 by Sir Percivall Potts, results in lysis of cartilage, narrowing of the joint space, collapsed vertebra, and little new bone formation. Among cases of tuberculosis of the spine, 12 per cent have transitory or drastic neurological encroachment distal to the disease either at the time of abscess or formation of granulation tissue.

"Let us now turn to the issue here—paraplegia with abscess formation. Girdlestone is emphatic, in that costotransversectomy, anterolateral decompression or laminectomy offers an answer to paraplegia with abscess formation. Furthermore, the

golden time of decompression is early in not allowing the cord to become damaged beyond return. The longer the paraplegia is allowed to persist, the less the recovery. Dr. Tutor feels that if six hours or more have passed, irrepairable cord damage is likely. I cannot disagree with this statement. The disadvantage of a laminectomy for decompression is that the caseous material is drained around the cord, rather than away from it as in a costotransversectomy or lateral decompression.

"I would feel that time must not be spent to "conservatively" treat a patient with tuberculosis and sudden paraplegia. Surgical intervention is the therapy of choice with evacuation of the compression material. A spinal fusion using autogenous bone can then be done to stabilize the back and reduce the rate recurrency of the disease."

Dr. Brunson: "You remember that I said that this was a complicated case. I want to ask Dr. Allison if he has any thought about why the culture was not positive."

Dr. Allison: "Presumably cultures for tuberculosis were performed on a medium designed to promote growth of *M. tuberculosis,* but contamination by proteolytic organisms led to digestion of the culture before studies were completed. Guinea pig inoculation is not performed routinely."

Physician: "Having written the protocol I have the advantage of a little advance information. The history of hypertension is denied on three separate write-ups, and the man during his hospital stay had urinary outputs up to 1,500 cc. per day which I find incompatible with this state of shock."

Dr. Brunson: "When did he have all this urine?"

Physician: "During his hospitalization here."

Dr. Brunson: "Well, I think it is certainly true that one can have gram-negative infection and bacteremia without profound shock in the first 24 hours. I will say again that this was a complicated case."

DIAGNOSES: (1) Pulmonary tuberculosis with spread into the adjacent vertebral bodies (tuberculous osteomyelitis) and (2) hepatic ischemic necrosis and renal papillary necrosis probably due to shock. ★★★

2500 North State Street

THE HEART OF THE MATTER

Punch, English humor magazine, reports the case of a thief who robbed the same place five times. Finally captured, he explained, "I have a heart condition and cannot run far. This office is near to an Underground station." Comments *Punch,* "It's sad to think that the wages of sin nowadays apparently won't stretch to a car. Or are endless traffic jams another factor in forcing crime underground?"

SPECIAL ARTICLE

Dr. E. C. Parker: Pioneer Surgeon and Medical Statesman

C. D. TAYLOR, JR., M.D.
Pass Christian, Mississippi

Each year, the Distinguished Service Oration, read before MSMA's House of Delegates, pays tribute to a deceased physician, who was a leader in state medicine. This year's oration honors Dr. E. C. Parker, who practiced in Gulfport for 55 years. During his lifetime, Dr. Parker did much to further medical organization. His positions with the Mississippi State Medical Association included president and chairman of the Board of Trustees. He was a charter member of the American College of Surgeons and helped organize the Gulf Coast Clinical Society and the Coast Counties Medical Society.

IT IS WITH deep humility that I take upon myself the task of recreating for you the image of a man who epitomized all of the tenets of our organization. It is my distinct pleasure to have such an honor bestowed on me, and I want to present this biography in such a way that you will see his character in all of its facets. We are constantly being informed that these are critical times, but think back over the past, and can you remember any phase of your progress through life when it was not "critical times." Medicine's face is changing and perhaps this is wholesome; however, we should take heed of the contributions and patterns of medicine of our distinguished members who went before us preceding this period of change. Our assembly is proof of our belief that organization for the betterment of our profession is important, and I will attempt to show you how one of our members lived his life with this belief as a strong motivating influence.

Edward Clifton Parker was born in Shelby, Ala. on April 2, 1874. His parents were William G. Parker and Lettie Mildred Hill. He was one of three children. His elementary education was received in the Shelby school, and he went to Howard College in Birmingham for his premedical training, receiving his Bachelor of Science degree in 1896. He then enrolled in Tulane University and graduated in 1899 with the degree of Doctor of Medicine. His interest in organized activities is obvious even at this early time, as he served on the Executive Committee of his class. One of his classmates was C. C. Bass who later became dean of Tulane Medical School. He was under the tutelage of Dr. Rudolph Matas during the period and a great friendship grew between them. Its influence became obvious in Dr. Parker's later life.

Following his graduation he returned for two years to Shelby, Ala., to practice and was employed by the Shelby Iron Company. However, his interest in surgery had become apparent, and he went to Montgomery, Ala., to study under Dr. L. L. Hill at Hill's Infirmary. Dr. Hill, the noted surgeon and teacher, was father of Lister Hill, senior U. S. Senator from Alabama. Dr. Parker became house surgeon at St. Margaret's Hospital, and while there, he assisted at the first successful suturing of a wound of the heart in the United States. It was done by Dr. Hill on a kitchen table in a Negro's house with a 13-year-old colored male patient. The operation was performed in the

1962 Distinguished Service Oration.
Member, Board of Trustees, Mississippi State Medical Association.
Read before the House of Delegates, 94th Annual Session, Mississippi State Medical Association, May 10, 1962.

poorest of lighting and in very poor medical circumstances. The case was well documented and is reported in the literature.

In December of 1899 Dr. Parker married Ida Lee Howell, the daughter of Mr. and Mrs. Benjamin F. Howell of New Orleans. The marriage was short-lived as Ida Lee died in childbirth in 1902, when their only child, a girl, was born. Dr. Parker moved to Gulfport in 1903 leaving his daughter in Montgomery with his sister. Sadness continued to plague him at this time because in 1904 the child, Mildred, contracted diphtheria and died.

Dr. Parker continued to practice in Gulfport and grew with the community. He practiced surgery along with general practice, as did the physicians of his day, but he did much referral work even in the period before World War I. He lived at 1516 E. Beach and continued in this house until the time of his death. His home is a veritable museum of his personal belongings collected over his long span of life. In 1914 he went to Vienna for postgraduate work in surgery but returned prematurely when the Grand Duke of Austria was assassinated.

ARMY CAREER

He joined the Army on June 27, 1917, and was attached to the First Division as field surgeon with the rank of captain. He was in active combat and the list of battles in which he participated during World War I reads like a chronicle of the advance of the Yanks through France. After the Armistice in 1918 he continued with the Army of Occupation serving in Germany until July of 1919.

After service in the Army, Doctor Parker returned to his practice in Gulfport. New ventures had moved into Gulfport, and he became the physician for the Gulf Coast Military Academy, a school for boys, and the Gulf Park College, a school for girls. He was local surgeon for the Louisville and Nashville Railroad and was also named as consulting surgeon at the new Veterans Hospital which was established at the site of the Gulfport Naval Base used in World War I. He contributed to medical literature by writing several articles, and for a long time, he was the only Fellow of the American College of Surgeons south of Jackson, Miss.

Having assisted Dr. Hill in suturing a heart in 1903, an opportunity presented itself for Dr. Parker to emulate his former chief. On July 11, 1931, a colored man was cut in the region of the heart. The patient was in shock and had no perceptible radial pulse when brought to the hospital. With Dr. A. F. Caraway assisting and Dr. Cummings McCall giving ether anesthesia, Dr. Parker opened the patient's chest and confirmed a preoperative diagnosis of laceration of the heart. The pericordium, both ventricles, and the septum were cut. These were separately sutured and the patient's condition rapidly improved. Six weeks later the patient was discharged and returned home for convalescence. He returned to his work as a longshoreman and died of bronchogenic carcinoma in 1951. At the time of his death, his heart was found to be perfectly normal.

FAMILY AND INTERESTS

In 1927, on Dec. 5, Dr. Parker remarried. His second bride was Letitia Rousseau of Quebec, Canada. They were wed in New York City at the Little Church Around the Corner. Their marriage was blessed by a son, Edward Clifton, Jr., born April 23, 1929. Dr. Parker was much pleased with his son and devoted as much of his time to him as possible. As soon as he was old enough to sail, Ed had a boat and his father became active in the Gulfport Yacht Club. Dr. Parker served on the Board of Governors and went to yacht races all



Dr. E. C. Parker, 1874-1961.

over the Mississippi Gulf Coast. Dr. Parker was also active in Ed's participation in the Gulfport High School athletic program, and he sat on the bench for the home football games whenever possible. Dr. Parker had played football and baseball at Howard College and his interest was rekindled when he had a son. Ed went to Davidson for his premedical training and then to Tulane University Medical School for his degree of Doctor of Medicine, which he received in 1954. He is presently in the Air Force as a captain and is married to Carroll Ann Kight. They have two sons.

During the time shortly after his marriage in 1927, Dr. Parker was active in the Chamber of Commerce and was a member of the Great Southern Country Club. He had no affiliation with any of the civic clubs but his interest in Gulfport never faltered and he was active in any local betterment program. At this time, let me tell you of his other social accomplishments. He was a member of the Gulfport Lodge 422, Free and Accepted Masons having entered Masonry at the Jackson Lodge 173 in 1895. He received his 50-year certificate as a Mason. He was a Shriner, a member of Hamassah Temple in Meridian. He was active in the American Legion and the Society of the First Division. He belonged to the First Baptist Church and was one of its eldest members at the time of his death.

HOBBY: ORGANIZED MEDICINE

I have attempted to run over for you the various facets of this rich and noble life. Now, let us turn to his hobby, which was ardently pursued—organized medicine. Dr. Parker thought that men of medicine should work together to improve the character of medical practice, add to medical knowledge, advance the lot of the individual in his community, and to improve the socioeconomic structure for doctor and patient alike. He was one of the founders of the Harrison County Medical Society in Gulfport along with Drs. Dan Williams, C. A. Sheeley, H. M. Folkes, and others in 1904. This group was active and interested in the public as well as the individual health. In 1919 they united with the Stone County group and became the Harrison-Stone County Medical Society. In 1920 Doctor Parker was elected president of this organization. This society in December 1928 suddenly became known as the Harrison-Stone-Hancock Medical Society without even a note of the incorporation of Hancock County being spread upon the minutes. In 1937 the Jackson County Medical Socicty joined in with the Harrison Stone Hancock Medical Society. At a meeting on May 5, 1937, Dr. Riley Burnett made a motion to change the name of the Society to the Coast Counties Medical Society. This was done and as such the society was incorporated on Dec. 10, 1937. The name of E. C. Parker appears on the Charter of Incorporation.

MSMA OFFICES

Dr. Parker was also active in the Mississippi State Medical Association. The following is a list of the positions he held in the association: vice president, 1912-13; chairman, Section on Surgery, 1913-14; alternate delegate to AMA, 1914-16; vice president, 1929-30; president-elect, 1933-34; president, 1934-35; chairman, Board of Trustees, 1948-55; Committee on Budget and Finance, 1943-44; MSMA member of Board of Directors, Mississippi Hospital and Medical Service, 1947-48; fraternal delegate to Alabama, 1956-57.

He was also a charter member of the American College of Surgeons, being on the Board of Governors of the organization. He was instrumental in founding a state chapter in Mississippi in 1939, being elected its first president. His interest in these organizations never faltered even in his waning years.

Another of his many endeavors was the Gulf Coast Clinical Society. When a group of physicians on the Gulf Coast of Mississippi, Alabama, and western Florida decided a clinical program once a year in the fall bringing speakers of national reputation would help medical education in the area, Dr. Parker was one of the founders. He served actively, becoming president in 1945. His other medical societies were the American Medical Association and the Southern Medical Association. He went to many AMA meetings and was a councilor of the Southern Medical Association at one time.

Dr. Parker's later years were plagued by illness. He had a major operation in 1950 for an intestinal obstruction and four years ago he broke his arm. At this time he closed his office. He could not drive his car as he was denied liability insurance, but Mrs. Parker went along with him and he continued to attend medical meetings. When he could no longer go because of being bound to his home by illness, he was registered by proxy for the meetings of the Gulf Coast Clinical Society in 1960. He alternated between the bed and wheel chair enjoying visitors up until a week before he died on March 2, 1961.

This man lived a simple life, and was a physician in the true sense of the word at all times. He was honored by the Ladies Auxiliary of the Coast Counties Medical Society in 1954 when he was

presented a cup as "Doctor of the Year." In 1949 he was honored by Tulane in a Golden Graduation honoring 50 year graduates. He was presented with a certificate of 50 years of service at this ceremony. He was a member of the Fifty Year Club of the Mississippi State Medical Association. During his service in World War I he was given the United Daughters of the Confederacy medal for direct lineal descendents of the Confederacy who served with gallantry and courage. The *Daily Herald,* the Gulf Coast daily paper, wrote an editorial following his death voicing the community's grief at the loss of one of its most revered citizens.

At this time, let me digress from my principal subject to tell you a little about Mrs. Parker. She felt that *Doctor* Parker was just that, and she should lend all of her efforts to help him. She graced many medical gatherings as hostess and guest, adding a touch of charm and culture that was sought by many. She has a wonderful disposition, being one of the serene individuals who exudes that feeling of comfort to all. During her husband's latter days, she was constantly with him to do his bidding and errands and serve as eyes and ears for him as well as hands and feet. She has assisted me with historical information for this paper for which I want to express my thanks.

My own association with Dr. Parker began in 1942 when he welcomed me as an extern at the King's Daughters Hospital at Gulfport between my junior and senior years of medical school. He went out of his way to help me to learn medicine—its art and practice. He was devoted to his patients and they to him. For this reason rounds with him was a gratifying experience. When I began to practice in 1948, his was always a helping hand. I am sure that his zeal kindled my interest in organized medicine.

We, in this organization, should always remember him as a fine surgeon, good citizen, able teacher, and supporter of organized medicine. Let us carry on the tenets of his teachings and continue his philosophy so that in the future his interests will serve as a stimulus to new members to carry on in his way. ★★★

113 Davis Avenue

UNDELIVERED AT TERM

A mid-western physician says this collection letter gets results: "Dear Sir: If you will please refer to my original statement for professional services rendered, you'll find that I have done more for you than your own mother—I've carried you for 12 months."

JOURNAL OF THE
MISSISSIPPI STATE
MEDICAL ASSOCIATION

Volume III, Number 6

June 1962

EDITORIALS

Vagotomy, Anthrectomy, Billroth I Anastomosis: A More Physiologic Operation for Duodenal Ulcer

I

NEW OPERATIONS are constantly being devised for the cure of duodenal ulcer. This indicates that the perfect solution is yet to be found. For years the standard operation has been a 75 per cent gastric resection followed by a Billroth II, Polya or Hoffmiester, gastrojejunostomy. Admittedly, this is a good operation. The operative mortality is low, recurrent gastrojejunal ulceration is relatively rare, about 3 per cent, and the over-all results are considered to be good to excellent in 93 per cent of patients. The poor results following a three-quarter resection, other than stomal ulceration, consist of dumping syndrome, poor nutritional states, and postoperative anemia. The removal of three-fourths of the stomach for a benign lesion seems to be a rather radical approach to the ulcer problem, especially if it results in distressing post-gastrectomy symptoms in a significant number of patients.

II

In their continuing search for a more physiologic operation for duodenal ulcer, many surgeons are taking a "second look" at the Billroth I operation. This operation, performed in 1881 by Billroth, consisted of resection of the pyloric end of the stomach followed by a gastroduodenostomy. Although anatomically sound, this operation was abandoned because of the high recurrence of gastroduodenal ulceration. Such a limited resection did not remove an adequate amount of the acid producing portion of the stomach.

With the development of the technique of abdominal vagotomy by Smithwick, Dragstedt, and others, there has evolved the "combined" operation, i.e. vagotomy, anthrectomy, and Billroth I gastroduodenostomy. Thus the cephalic phase of acid secretion is abolished by vagotomy, and the gastric phase by anthrectomy, while still maintaining an adequate gastric pouch.

Certain criteria have evolved in performing a successful combined operation. The vagotomy must be complete. This requires total division of the right and left vagal trunks and any accessory branches. The anthrectomy must be adequate so that most of the lesser curvature of the stomach is removed in conjunction with a 40 to 45 per cent gastric resection. In the light of present knowledge, the Shoemaker modification of the Billroth I anastomosis (greater curvature to duodenum) seems to be the operation of choice.

III

Although many more operations and longer periods of follow-up must be studied before final evaluation, present statistics indicate a decided advantage of the vagotomy, Billroth I operation over the Billroth II operation. Postoperative

studies indicate less than 10 per cent of the patients with Billroth I operation have lost weight. Symptoms of dumping syndrome have occurred in only 25 per cent of these patients as compared with 40 per cent of those having a Billroth II procedure. Recurrent ulceration has occurred in one-third of 1 per cent in the combined operation as compared with 3 per cent in the standard operation. Nutritional anemia has not been a problem in the Billroth I series. The over-all results were considered to be very satisfactory in 95 per cent of the patients studied in large series of cases.

Although in certain instances technical difficulties such as a severely scarred or adherent posterior ulcer may indicate a Billroth II anastomosis as the safest choice, for most patients the procedure of bilateral vagotomy, anthrectomy, and Shoemaker-Billroth I gastroduodenostomy is a more physiologic operation. This is substantiated by a lower incidence of recurrent ulceration, anemia, weight loss, and dumping syndrome. —G.H.M.

Bobby's Lobby—Nevermore!

Senator John J. Williams (R., Del.) often assumes the role of a conservative watch dog. On occasion, he likes to needle the agriculture mess, point out waste and extravagance in foreign aid, and, in general, stand against liberal programs. Recently, he did yeoman service to the cause of conservatism by singlehandedly stopping the Kennedy administration from utilizing federal civil service workers—more than a million of them—as a huge lobby for administration legislative proposals.

A month ago, the Kennedy forces cooked up the idea of having civil service employees "explain" administration legislation. The plan, incredibly enough, had the approval of John W. Macy, chairman of the federal civil service committee, and, not so incredibly, Attorney General Robert F. Kennedy. Conveniently, the Hatch Act, prohibiting partisan political activity by civil service employees, was deemed inapplicable.

When the senate was considering the President's $560 million supplemental appropriations bill which funded everything from disaster relief to school construction, Senator Williams tacked on an amendment prohibiting lobbying and propaganda activities by federal employees. Not until the civil service authorities rescinded the "explaining" ruling did the senator withdraw his amendment.

It takes little imagination to visualize what might have happened if the precedent had been set, let alone upheld by the liberal-loving U. S. Supreme Court. Compulsory federal medical care, foreign aid expansion, federal voting legislation, and all the causes dear to the panting do-gooders might otherwise have had an advocate on every street corner, "explaining" the issues at public expense.

What we really need are more Senators Williams.—R.B.K.

Tissue Committees: Legal Traps or Quality Aids?

Nearly all physicians applaud the purpose and function of tissue committees. The Joint Commission on Accreditation of Hospital encourages the work of these bodies of the professional staff in hospitals. But some regard the tissue committee as a two-headed monster, on the one hand furthering staff education and fostering self-discipline but on the other, posing a serious medicolegal threat.

Often, physicians debate the question of whether the records of a tissue committee might be subpoenaed in a professional liability action and used against the defendant. At least one group of authorities feel that this eventuality is unlikely. A joint medicolegal task force of the California Medical Association and its hospital counterpart found that there is no case of record where such issues have been presented and decided by the courts.

Say the California experts: It would seem that based on established (legal) principles, tissue committee records or testimony of the members acting as a tissue committee, would not be admissible in a malpractice action. And they advance four reasons for their conclusion.

First, there is no physician-patient relationship existing between members of the tissue committee and the patient. The committee neither examines the patient nor does it consult with the attending physician during the course of care.

Second, tissue committee records do not become a part of the clinical record of care rendered a patient. Nor are the committee records required as part of the care. They are not made contemporaneously with the treatment and as such, they do not relate to the treatment. Rather, tissue committee records relate to the process of self-education and self-betterment of the hospital's professional staff as a whole.

Third, committee records are usually tabular in format and relate to trends. They are actually con-

fidential intraorganizational studies for the purpose of improving medical staff knowledge, self-education, and self-discipline. The acts and decisions of committee members—at least in California—are thus given a qualified or limited privilege.

Fourth, the standard of judgment used in the deliberations is a standard of excellence. Such a standard is irrelevant to the issue of the prevailing exercise of professional skill in the community upon which malpractice actions are most often decided.

Let none construe these opinions as license to toss caution and propriety to the winds in the performance of this vital professional function in hospitals. Rather, it seems that these views should be regarded as encouragement for support of tissue committees and baselines for hospital and professional staff legal counsel to apply in interpreting local statutes.—R.B.K.

NEW MEMBERS

The following physicians have been elected to membership by their respective component medical societies in the Mississippi State Medical Association and the American Medical Association:

Anderson, William Jefferson, III, Meridian. Born Meridian, Miss., Nov. 26, 1930; M.D., Baylor University College of Medicine, Houston, Texas, 1956; interned Confederate Memorial Medical Center, Shreveport, La.; surgery residency, Confederate Memorial Medical Center, Shreveport, La., four years; elected Feb. 6, 1962, by East Mississippi Medical Society.

Carter, Robert Frank, Jr., Biloxi. Born Biloxi, Miss., June 19, 1927; M.D., Tulane University School of Medicine, New Orleans, La., 1953; interned Charity Hospital of Louisiana, New Orleans; general surgery residency, Ochsner Foundation Hospital, New Orleans, La., one year; urology residency, Ochsner Foundation Hospital, New Orleans, La., two years; Captain, U. S. Air Force, two years; elected June 7, 1962, by Coast Counties Medical Society.

Cronin, Irvin Howard, Jackson. Born Purvis, Miss., July 29, 1929; M.D., University of Mississippi School of Medicine, Jackson, 1960; interned U. S. Public Health Service Hospital, Norfolk, Va.; U. S. Public Health Service, one year; elected Oct. 3, 1961, by Central Medical Society.

McAnelly, Verla Lavon Pickering, Greenville. Born Huntsville, Ark., April 6, 1913; M.D., University of Arkansas School of Medicine, Little Rock, 1958; interned San Francisco General Hospital, Calif.; anesthesiology residency, University of Arkansas Medical Center, Little Rock, two years; member of the American Society of Anesthesiology; elected April 11, 1962, by Delta Medical Society.

Reynolds, Robert Nelson, Shaw. Born Greenwood, S. C., Jan. 8, 1933; M.D., University of Tennessee College of Medicine, Memphis, 1960; interned Methodist Hospital, Memphis, Tenn.; elected April 11, 1962, by Delta Medical Society.

Springer, Philip Karl, Washington. Born Biloxi, Miss., May 24, 1933; M.D., University of Mississippi School of Medicine, Jackson, 1960; interned University of Mississippi School of Medicine, Jackson; elected Jan. 1, 1962, by Homochitto Valley Medical Society.

Tullos, Emmett Albert, Jr., Pascagoula. Born Pratt, Kans., June 13, 1923; M.D., University of Mississippi School of Medicine, Jackson, 1958; interned University of Mississippi School of Medicine, Jackson; Private, U. S. Army, one year; elected Sept. 7, 1960, by Coast Counties Medical Society.

Wiser, Winfred Lavern, Greenville. Born Wartrace, Tenn., June 14, 1926; M.D., University of Tennessee College of Medicine, Memphis, 1952; interned John Gaston Hospital, Memphis, Tenn.; Ob-Gyn residency, University of Mississippi School of Medicine, Jackson, two years; member of the American College Ob-Gyn; U. S. Army, two years; elected April 11, 1962, by Delta Medical Society.

DEATHS

Hooper, Sam Jones, Jackson. M.D., Memphis Hospital Medical College, Tenn., 1910; emeritus member of MSMA and member of the Fifty Year Club; died April 26, 1962, aged 75.

PERSONALS

FRED ALLISON, JR., and JOHN D. WOFFORD, both of Jackson, were elected associate members of the American College of Physicians at the organization's April meeting.

DUFF D. AUSTIN has been named a director of the Newton Chamber of Commerce.

V. D. FRANKS of Marks was recently awarded a life-time membership to the J. D. Johnson Post No. 47 of the American Legion.

J. C. GREEN of Tupelo was presented a testimonial of appreciation for distinguished leadership and devotion to surgical education at the last Clinical Congress of Abdominal Surgeons in Chicago following his presentation of a paper on "Plication for Chronic Recurrent Intestinal Obstruction."

DONALD HALL of Vicksburg has been named president of the Ophthalmological and Otolaryngological Society of Louisiana-Mississippi. Dr. Edley Jones of Vicksburg is secretary-treasurer.

R. H. MCARTHUR of Jackson was guest speaker before the Eye, Ear, Nose and Throat Section of the Arkansas State Medical Association at its May meeting. McArthur discussed "Control of Epistaxis."

SAMUEL P. MCMANUS will open his practice at Gloster on July 10 after receiving his discharge from the United States Army where he has served as a captain. A native of Gulfport, Dr. McManus is a graduate of the University of Mississippi School of Medicine and interned at University Hospital in Jackson.

E. L. POSEY, JR., of Jackson delivered the Dedicatory Address for Simmons Infirmary at Blue Mountain College on May 5. The infirmary is named for Mr. and Mrs. D. C. Simmons of Jackson.

GEORGE PURVIS of Jackson, president of the medical staff of the Mississippi Baptist Hospital, brought the commencement address to graduates of the Gilfoy School of Nursing at the ceremonies on May 27.

LOUIE F. WILKINS of Brookhaven has announced his association with JOSEPH P. CRAWFORD and MARION H. BROWN for the practice of general surgery.

State Morbidity Reported Through May 11

The Mississippi State Board of Health reports the following occurrence of morbidity for 1962 through the 19th week of the year, ending May 11, 1962. Case totals reported are shown opposite the disease condition.

Tuberculosis, pul.	243
Tuberculosis, O.F.	21
Brucellosis	1
Dysentery	
Amebic	7
Bacillary	11
Food Poisoning, NOS	3
Septicemia, Strep.	4
Septicemia, Staph.	33
Leptospirosis	1
Toxoplasmosis	1
Staphylococcus Infection	7
Diphtheria	4
Meningococcus infection	
Meningitis	8
Meningococcemia	1
Meningitis, O.F.	27
Other complications of smallpox vaccination	2
Tularemia	2
Tetanus	5
Encephalitis, infectious	9
Mononucleosis, infectious	24
Diarrhea of newborn	2
Hepatitis, infectious	436
Helminthic infections	
Hookworm	264
Ascariasis	134
Strongyloides	14
Histoplasmosis	1
Other fungus infections	1
Streptococcus infections	
Scarlet fever	138
Strep throat	1,760
Malaria	1
Rheumatic fever	2
Pertussis	11
Measles	2,281
Chickenpox	659
Mumps	230
Influenza	11,160
Gonorrhea	1,842
Syphilis	
Early	51
Late	125

THE LITERATURE

Book Review

Current Therapy—1961. Edited by Howard F. Conn, M.D. 806 pages. W. B. Saunders Company, 1961, $12.50.

Current Therapy for 1961 is essentially a new book, and the contributors for this book are renowned in their field and are recognized authorities in the medical world. They have described their present method of treatment in a brief, concise, and very helpful manner.

While having this book for review, I had the opportunity to use it in my practice on several common and some uncommon diseases, and I found it to be very useful in the treatment of these cases.

Since the therapeutic scene is constantly changing, and in recent years very rapidly, this publication should be in every physician's office.

In addition to its many helpful suggestions on treatment, it contains a list of normal values of clinical importance; also, a very useful roster of drugs, a table of pediatric dosages, and an entire section devoted to physical and chemical injuries.

Other sections of the book are:

Section One—The Infectious Diseases
Section Two—The Respiratory System
Section Three—The Cardiovascular System
Section Four—The Blood and Spleen
Section Five—The Digestive System
Section Six—Metabolic Disorders
Section Seven—The Endocrine System
Section Eight—The Urogenital Tract
Section Nine—The Venereal Diseases
Section Ten—The Allergic Diseases
Section Eleven—Diseases of the Skin
Section Twelve—The Nervous System
Section Thirteen—The Locomotor System
Section Fourteen—Obstetrics and Gynecology
Section Fifteen—Physical and Chemical Injuries.

The entire 16 section book is a very valuable addition to any library. The obsolete procedures are rarely mentioned, and the methods or agents recommended are fully tested, or, if they have not been fully tested, they are so designated. This to me makes it a very authoritative book.

W. E. Lotterhos, M.D.

Domestic Journals

Attempted Suicide in Children. Harold Jacobziner, M.D.: J. Pediat. 56:519-525 (April) 1960.

Physicians must acquire a greater awareness of and interest in the problems of suicide prevention. Teachers and parents need to have a better understanding of the particular problems, needs, interests, and reactions of adolescents. Adolescents who have attempted suicide, and their families, need to be evaluated by a physician. In many cases, psychiatric consultation may be indicated or at least the problem should be discussed with a psychiatrist. The nonpsychiatric physician, whatever his speciality, can do a lot toward mobilizing the various resources of the family in a careful consideration of the whole problem. It would be desirable if any attempted suicide could be reported to some central agency to insure an adequate follow-up, after-care and guidance for the family as the situation is likely to have been quite traumatic to all. In most places this is not available.

Warning signs which help in the early detection of the child's inclination toward suicide are sudden change of personality or behavior, agitation, anxiety, irritability, depression or a variety of other symptoms including temper outbursts. As in younger children, acting out behavior may be a prime indication of an emotional problem rather than the more conventional anxiety reactions or psychosomatic symptoms seen in adults. Discussion with the teachers is often helpful in finding out more about the problem.

Suicide is a relatively minor cause of death under 15 years of age, but thereafter it assumes an increasingly important role. The incidence rises in males with increasing age, but with females it declines notably after the age of 60. In the 10-16 year age group, suicide ranks 13th as a cause of death, at 15-19 it rises to sixth place. The high incidence in males and the low incidence in nonwhites is generally observable at all ages. The most common methods of suicide are hanging, poisoning, and jumping from high places.

In a four year study in New York City of 299 attempted suicides by poisoning of individuals under 20 years of age, some interesting observa-

tions were recorded. High incidence was observed in children who came from broken, disorganized homes. A seasonal pattern was noted: The suicide rate was lowest in the autumn and highest in the spring. Attempted suicide seems to be relatively frequent during adolescence (note the high position it occupies as a cause of death in this age group). There was a ratio of at least 50 attempts for every actual suicide. Unlike completed suicide which is more frequent in the high income group, the majority of attempted suicides occurred in the medium and low income group.

Paradoxically, the family and others often wish to depreciate the importance of the suicidal attempt or to act almost as if it did not occur. Too often it is thought of as just a gesture and is not taken seriously. It bears repeating that the number of successful suicides is far higher in the group attempting or making suicide attempts than it is in the general population, contrary to popular belief.

FLOY JACK MOORE, M.D.

University Schedules Commencement For June 10

The University of Mississippi School of Medicine has set its 1962 commencement exercises for June 10. The ceremony will begin at 4 p.m. at the First Baptist Church.

Commencement speaker will be Boisfeuillet Jones, special assistant for health and medical matters to the Secretary of the Department of Health, Education, and Welfare. Prior to assuming this position, Mr. Jones was vice president of Emory University and administrator of health services.

The University will celebrate Founders Day of the School of Nursing on June 29. Dean Rosanna Schlotfeldt of the Western Reserve School of Nursing will be the speaker.

Ob-Gyn Board Now Accepting Applications

The American Board of Obstetrics and Gynecology has announced that it is now accepting applications for certification, new and reopened, Part I, and requests for re-examination in Part II.

All applications and requests for re-examination must be received by the board before the deadline date of July 1, 1962.

Candidates are urged to review the current "Bulletin of the Board," which may be acquired by writing Dr. Robert L. Faulkner, Executive Secretary and Treasurer, 2105 Adelbert Road, Cleveland 6, Ohio.

After July 1, 1962, the board will require a minimum of three years of approved progressive residency training for admission to the examinations. After this date, training by preceptorship will not be acceptable.

W. B. Saunders Announces Recent Publications

W. B. Saunders Company features the following recent books in their full page advertisement appearing elsewhere in this issue:

GREEN and RICHMOND—PEDIATRIC DIAGNOSIS

A symptomatic approach to diagnosis of childhood disorders—telling you what to look for, how to look for it, and the significance of your findings

NEALON—FUNDAMENTAL SKILLS OF SURGERY

Step-by-step procedures in both major and minor surgery—ranging from management of infection to closed chest treatment of cardiac arrest

THE 1961-1962 MAYO CLINIC VOLUMES

171 valuable articles from this world-famous medical center on the latest diagnosis and treatment measures in medicine and surgery

Hospital Benefits At $4.6 Million A Day

The American public received an average of $4.6 million a day from insurance companies during 1961 to help pay for hospital care, according to the Health Insurance Institute.

The $4,619,000 average daily payments added up to a total of $1,686,000,000 paid out in hospital expense benefits during the year by insurance companies. The benefits included payments made under hospital expense policies as well as that portion of benefits under major medical expense policies which went for hospital bills.

With the inclusion of health insurance payments for other than hospital care, insurance companies last year distributed benefits of some $3.4 billion, a 10.6 per cent climb over 1960. The grand total of health insurance benefits paid out during 1961 by all insuring organizations was estimated by the Institute at $6.3 billion, up from $5.7 billion in 1960.

TRUSTEES, COUNCILS, AND COMMITTEES

BOARD OF TRUSTEES

H. H. McClanahan, Jr., Columbus, Chairman (1964)
John B. Howell, Jr., Canton, Vice Chairman (1965)
C. D. Taylor, Jr., Pass Christian, Secretary (1963)
Charles W. Patterson, Rosedale (1964)
Joseph B. Rogers, Oxford (1964)
Mal S. Riddell, Jr., Winona (1965)
Lamar Arrington, Meridian (1965)
William E. Moak, Richton (1963)
Everett H. Crawford, Tylertown (1963)

COUNCIL ON BUDGET AND FINANCE

W. K. Purks, Vicksburg, Chairman (1963)
Omar Simmons, Newton (1964)
J. T. Davis, Corinth (1965)

EDITORIAL COUNCIL

W. Moncure Dabney, Crystal Springs, Editor (1963)
George H. Martin, Vicksburg, Associate Editor (1964)
Dewitt W. Hamrick, Corinth, Associate Editor (1963)

COUNCIL ON MEDICAL EDUCATION

Temple Ainsworth, Jackson, Chairman (1963)
E. LeRoy Wilkins, Clarksdale (1964)
W. O. Barnett, Jackson (1965)

COUNCIL ON CONSTITUTION AND BY-LAWS

E. Leroy Wilkins, Clarksdale, Chairman (1963)
Frank C. Massengill, Brookhaven (1965)
John B. Howell, Jr., Canton (1964)

COUNCIL ON LEGISLATION

W. E. Lotterhos, Jackson, Chairman (1963)
Lamar Arrington, Meridian (1964)
John G. Egger, Drew (1965)
R. E. Shands, New Albany (1965)
Frank M. Davis, Corinth (1965)
Paul B. Brumby, Lexington (1964)
Van C. Temple, Hattiesburg (1963)
A. V. Beacham, Magnolia (1963)
James T. Thompson, Moss Point (1963)

JUDICIAL COUNCIL

E. LeRoy Wilkins, Clarksdale, Chairman (1965)
R. L. Wyatt, Holly Springs (1965)
Thomas N. Braddock, Jr., West Point (1965)
Samuel B. Caruthers, Grenada (1963)
George H. Martin, Vicksburg (1963)
Omar Simmons, Newton (1963)
A. T. Tatum, Petal (1964)
G. Swink Hicks, Natchez (1964)
W. J. Weatherford, Pascagoula (1964)

COUNCIL ON MEDICAL SERVICE

Guy T. Vise, Meridian, Chairman (1965)
M. Q. Ewing, Amory, Vice Chairman (1963)
Edward Pennington, Ackerman (1965)
Frank M. Acree, Greenville (1963)
Joseph B. Rogers, Oxford (1963)
Temple Ainsworth, Jackson (1965)
T. E. Ross, Hattiesburg (1964)
E. H. Crawford, Tylertown (1964)
Fred C. Minkler, Pascagoula (1964)

COUNCIL ON SCIENTIFIC ASSEMBLY

C. G. Sutherland, Jackson, Chairman (1964)
Thomas W. Wesson, Tupelo, EENT
William E. Lotterhos, Jackson, GP
Joe S. Covington, Meridian, Medicine
Blanche Lockard, Jackson, Ob-Gyn
Joseph B. Miller, Jackson, Pediatrics
W. E. Riecken, Kosciusko, Preventive Medicine
Joseph G. McKinnon, Hattiesburg, Surgery

MEETINGS

NATIONAL AND REGIONAL

American Medical Association, June 24-28, 1962, Chicago, Ill. F. J. L. Blasingame, Executive Vice President, 535 N. Dearborn St., Chicago 10, Ill.

American Academy of General Practice, April 1-4, 1963, Chicago, Ill. Mr. Mac F. Cahal, Executive Director, Volker Blvd., at Brookside, Kansas City 12, Mo.

American College of Surgeons, Clinical Congress, Oct. 15-19, 1962, Atlantic City. William E. Adams, 40 E. Erie St., Chicago 11, Secretary.

STATE AND LOCAL

Mississippi State Medical Association, May 13-16, 1963, Biloxi. Mr. Rowland B. Kennedy, Executive Secretary, 735 Riverside Drive, Jackson.

Mississippi Chapter, American College of Surgeons, Nov. 16, 1962, Heidelberg Hotel, Jackson. Edward C. Hamilton, 14th St. and 25th Ave., Gulfport, Secretary.

Amite-Wilkinson Counties Medical Society, First Tuesday March, June, September, December. S. E. Field, Centreville, Secretary.

Central Medical Society, First Tuesday Monthly, 6:30 p.m., Robert E. Lee Hotel, Jackson. George E. Gillespie, 514-A East Woodrow Wilson Drive, Jackson, Secretary.

Claiborne County Medical Society. D. M. Segrest, Port Gibson, Secretary.

Clarksdale and Six Counties Medical Society, Second Wednesday March and November, 2:00 p.m., Clarksdale. Whitman B. Johnson, Jr., 645 Evelyn Ave., Clarksdale, Secretary.

Coast Counties Medical Society, First Wednesday March, June, September, and November. Charles N. Floyd, 1412-23rd Ave., Gulfport, Secretary.

Delta Medical Society, Second Wednesday April and October. Howard A. Nelson, 308 Fulton St., Greenwood, Secretary.

DeSoto County Medical Society, Second Thursday January, April, July, and October, 1:00 p.m., Hernando Motel Cafe, Hernando. L. L. Minor, Route 9, Memphis 9, Tenn., Secretary.

East Mississippi Medical Society, First Tuesday February, April, June, August, October, and December. Hugh S. Rayner, Jr., 1216-21st Ave., Meridian, Secretary.

Homochitto Valley Medical Society, Fourth Tuesday Monthly, 7:30 p.m., Natchez Country Club, Natchez. W. T. Colbert, Natchez General Hospital, Natchez, Secretary.

North Central District Medical Society, Second Wednesday March and September. Robert B. Townes, Jr., 1196 Mound St., Grenada, Secretary.

Northeast Mississippi Medical Society, Second Tuesday March, June, September, and December, Tupelo. Thomas W. Wesson, 421 Main St., Tupelo, Secretary.

North Mississippi Medical Society, First Thursday January, April, and October, Oxford. Marcus E. Morrison, 512 Van Buren Ave., Oxford, Secretary.

Pearl River County Medical Society, Second Monday March, June, September, and December. Samuel O. Massey, Jr., 220 E. Canal St., Picayune, Secretary.

South Mississippi Medical Society, Second Thursday March, June, September, and December. Thomas F. Puckett, 715 Arledge St., Hattiesburg, Secretary.

Tri-County Medical Society, Second Tuesday March, June, September, and December. A. V. Beacham, Magnolia, Secretary.

West Mississippi Medical Society, Second Tuesday January, April, July, and October, 7:00 p.m., Old Southern Tea Room, Vicksburg. Tom H. Mitchell, The Street Clinic, Vicksburg, Secretary.

Dr. Archer Named President-Elect, Dr. Crenshaw Elevated to Presidency in Closing Meet of House

In its closing meeting of the 94th Annual Session held Thursday, May 10, MSMA's House of Delegates took final action on over 30 reports and resolutions and named Dr. John G. Archer of Greenville president-elect. Following the association's traditional plan of succession, Dr. C. P. Crenshaw of Collins, 1961-62 president-elect, was inaugurated president. He succeeds Dr. Lawrence W. Long of Jackson.



Dr. C. P. Crenshaw is sworn in as president of MSMA by Dr. H. H. McClanahan, chairman, Board of Trustees, as Rowland B. Kennedy, MSMA executive secretary, looks on.

Dr. Archer has been a member of MSMA's Board of Trustees for six years and Dr. Crenshaw for 15 years. Their resignations brought the number of board members to be elected to five.

New trustees named by the House were Dr. C. W. Patterson of Rosedale, District 1 (succeeding Dr. Archer); Dr. William E. Moak of Richton, District 7 (succeeding Dr. Crenshaw); Dr. Mal S. Riddell, Jr., of Winona, District 4; Dr. John B. Howell, Jr., of Canton, District 5, and Dr. G. Lamar Arrington, District 6.

In its role as policy-making body of the association, the House reaffirmed its opposition to compulsory federal health care of the aged under Social Security, recommended meaningful implementation of the Kerr-Mills program in Mississippi, proposed that the University of Mississippi School of Medicine investigate the feasibility for teaching in the state charity hospitals, and referred to the Board of Trustees a resolution providing that MSMA members would not participate in any system of medical care which they determined to be contrary to the best interests of their patients.

Also named to office during the annual elections were Dr. S. Jay McDuffie of Nettleton, vice-president for the northern area; Dr. George E. Gillespie of Jackson, vice-president for the mid-state area, and Dr. Victor E. Landry of Lucedale, vice-president for the southern area.

Dr. George E. Twente of Jackson was named delegate to AMA and Dr. Stanley A. Hill of Corinth was named alternate delegate for terms

(Turn to page 282)



Newly elected MSMA officials talk with Dr. H. H. McClanahan, chairman of the Board of Trustees, shortly after the close of the 94th Annual Session. From left to right are Dr. C. P. Crenshaw, president; Dr. McClanahan; Dr. Mal S. Riddell, Jr., trustee; Dr. C. W. Patterson, trustee; Dr. William E. Moak, trustee, and Dr. John G. Archer, president-elect.

Camera Records Fast


1



2


3


4

In a program unique for a state medical society, MSMA sponsored a half-day Symposium on Space Medicine as the midway attraction for its May 7-10 meet. Speakers scheduled were three physician-scientists who play an integral part in the nation's space program and Senator John C. Stennis. As urgent legislative activities kept the Senator in Washington, his son, Jackson attorney John H. Stennis, read his prepared speech.

Symposium principals conferring in Figure 1 are Dr. Hubertus Strughold, Lieutenant Colonel David Goodman Simons, John H. Stennis, and Colonel John Paul Stapp.

On exhibit in conjunction with the symposium was a Mercury MA-4 space capsule. MSMA officials, Dr. C. P. Crenshaw, Dr. Lawrence W. Long, and Dr. C. G. Sutherland check it over shortly after installation in Figure 2.

"The adults got a kick out of it, but the kids understood it," was the opinion of officials manning the Air Force exhibits. Figure 3 shows "Little Doc" Hicks, son of Dr. and Mrs. G. Swink Hicks of Natchez inspecting the Mercury's panel board. Members of Jackson's Future Physicians' Clubs, Dusty Rhodes of Provine High, Bruce Smith of Central High, and David Van Landingham of Murrah High, look over the capsule with one of their sponsors, Dr. Raymond S. Martin, Jr., in Figure 4.

Another first for the 94th was the presentation of the first annual Robins Award for citizenship. In Figure 5, Dr. Long presents the plaque to Dr. Thomas G. Ross, winner, while Willard Duvall, Robins' representative, looks on.


5


6

Pulse of 94th Session

The 1962 exhibit prize, a pair of matched gold Colt .44 replicas, went to Dr. W. E. Caldwell, who receives them from Dr. Long in Figure 6.

Along with the excitement of the space show, the regular business of the annual session was conducted as usual. In Figure 7, speaker of the House, Dr. B. B. O'Mara calls the delegates to order. Figure 8 pictures a packed session of the Reference Committee on Medical Practices with Dr. G. Swink Hicks presiding.

A record number of special meetings were held in conjunction with the Annual Session. In figure 9 members of the Southern Medical Association meet with SMA's executive secretary, Robert F. Butts. Standing left to right on the bottom row are Dr. John F. Lucas, Dr. Stanley A. Hill, and Mr. Butts. Left to right on the stairs are Drs. Robert Q. Marston, Guy T. Vise, J. P. Culpepper, Raymond Grenfell, and Howard A. Nelson.

Past presidents of MSMA pause on their way to breakfast in Figure 10. From the left are Drs. Stanley A. Hill, J. R. Hill, Lamar Arrington, H. C. Ricks, Sr., B. S. Guyton, and A. Street.

In Figure 11 members of the Fifty Year Club talk over old times. From the left are Drs. Hunter L. Scales, Benton Z. Welch, John S. McIntosh, William J. Aycock, and Leon H. Brevard.

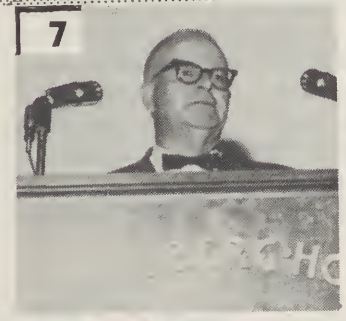
One highlight of each session is the Distinguished Service Oration, which this year honored Dr. E. C. Parker of Gulfport. Dr. C. D. Taylor, Jr., 1962 orator, begins his remarks in Figure 12.

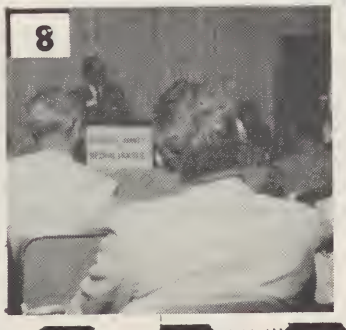

12


11


10


9


7


8

1963-64. Dr. George H. Martin of Vicksburg was elected associate editor.

Physicians named to councils were William O. Barnett of Jackson, Medical Education; Frank C. Massengill of Brookhaven, Constitution and By-Laws; John G. Egger of Drew, Robert E. Shands of New Albany, Frank M. Davis of Corinth, Legislation; E. LeRoy Wilkins of Clarksdale, Rhea L. Wyatt of Holly Springs, Thomas N. Braddock, Jr., of West Point, Judicial Council; Edward Pennington of Ackerman, Temple Ainsworth of Jackson, and Guy T. Vise of Meridian, Medical Service.

Elected to the Board of Directors of the Mississippi Hospital and Medical Service were Drs. S. Lamar Bailey of Kosciusko; M. Q. Ewing of Amory; Joseph B. Rogers of Oxford, and James G. Thompson of Jackson.

Nominated for the Board of Trustees of Mental Institutions were Drs. James K. Avent, Sr., of Grenada; Aubrey V. Beacham of Magnolia; Victor E. Landry of Lucedale; Henry C. Ricks, Sr., of Jackson, and Mal S. Riddell, Jr., of Winona. One will be appointed by the governor.

Fraternal delegates for 1962-63 are Dr. Leon H. Ratliff of Belmont, to Alabama; Dr. C. G. Sutherland of Jackson, to Arkansas; Dr. Victor E. Landry of Lucedale, to Louisiana, and Dr. Robert P. Sayle of Tunica, to Tennessee.

In other legislative action the House of Delegates

—called for appropriate legislation to provide liability protection for those engaged in medical research activities, particularly with hospital staff tissue committees,

—approved guides for the use of gamma globulin as a prophylaxis for hepatitis,

—rejected a resolution seeking revision of the Blue Shield fee schedule,

—voted to set up a phenylketonuria detection program recommending that test be conducted on infants at the age of four to six weeks,

—referred to the Board of Health a resolution to make internship a prerequisite to medical licensure,

—turned down a resolution to establish a Section on Radiologists because of the small number of radiologists in the state and because the Ainsworth resolution provides for specialty representation before the several scientific sections.

Scheduling its opening meeting a day earlier in Annual Session schedule because of the expanded program for 1962, the House of Delegates met on Monday, May 7, to hear the introduction of reports and resolutions and the traditional address of the president. Nonlegislative highlight of the Thursday meet was the Distinguished Service Oration honoring the late Dr. E. C. Parker of Gulfport. Dr. C. D. Taylor, Jr., of Pass Christian made the address.

Dr. B. B. O'Mara of Biloxi, speaker, and Dr. Howard A. Nelson of Greenwood, vice speaker, presided over the House sessions. The 1962 meeting series was called to order by Dr. Lawrence W. Long and closed by Dr. C. P. Crenshaw shortly after his inauguration as president by Dr. H. H. McClanahan of Columbus, chairman of the Board of Trustees.

Scientists Bring World Of Space Travel to 94th

A space scientist who believes life for men on the moon would be difficult but rewarding, an Air Force colonel who sees space research as a substitute for war, and a record-setting Air Force balloonist who learned firsthand the need for aerospace monitoring techniques, brought the world of space travel to MSMA's 94th Annual Session.

In a precedent-setting Symposium on Space Medicine, these three scientists, all pioneers in the field of aerospace medicine, and John H. Stennis, appearing for his father, Senator John C. Stennis, talked to an attentive crowd of physicians and their guests. Senator Stennis, originally scheduled to participate in the symposium, was detained in Washington for the cloture vote on the administration's literacy test bill.

Dr. Hubertus Strughold, chairman of the Advanced Studies Group, USAF Aerospace Medical Center, Brooks AFB, Texas, discussed the difficulties facing earthmen exploring the moon. The grey-haired, personable scientist, who saw the importance of medicine to space travel long before man penetrated the ionosphere, told the audience that man venturing on the moon without protection could expect about 15 seconds of "useful consciousness." The rarified lunar atmosphere would produce profuse evaporation or boiling of body fluids in the unshielded human body, he said.

Silence on the moon, continued Dr. Strughold, would be complete because sound propagation is impossible in the thin gaseous medium covering the lunar body. He also noted that on the airless moon, all types of radiations found in space have direct access to the surface in full intensity and without change in spectrum or composition. Thus,

the need for protection from radiation hazards, which on earth lies in a belt above its atmosphere, is shifted on the moon to the environment immediately above its surface, he said.

Scenery on the moon, said the space scientist, would be a matter of light and shadow posing problems in the field of contrast vision. This is because the sun shines directly on the moon's surface without the scattering of light produced by our atmosphere, he said. The sun, continued Dr. Strughold, would be seen as a bright light in a permanently black sky in which the stars are always visible. He said that the situation can only be approximated on earth by artificial conditions such as theatrical stage lighting. Everything that is exposed to sunlight appears bright, with variations, of course, depending upon the reflecting power of the material; everything in the shadow appears dark for a bright adapted eye, he said.

Dr. Strughold observed that this typical space sky would necessitate caution against retinal burn. He predicted that moon explorers would wear automatically functioning light and heat absorbing glasses of photoreactive material.

Finally, Dr. Strughold commented on the difficulties earthmen might face from the moon's quick changes in temperature—from 140° C. at noon to −150° C. at midnight—and the low gravitational pull.

Because of all these adverse physical factors, Dr. Strughold predicted any life on the moon would be of a primitive form, perhaps anaerobic microorganisms of the type that existed in the protoatmosphere of the earth two billion years ago.

Lieutenant Colonel Simons, best known for his "Manhigh" flight to the edge of space in a three million cubic foot capacity balloon, discussed radio telemetry techniques being developed to transmit multiple physiological bioelectric measures from astronauts.

Colonel Simons, whose Aug. 19, 1957, flight was made without benefit of sophisticated monitoring devices, told the physicians, "There is no substitute for the unique abilities of man to observe, to make judgments, and most important, to exercise control based on these judgments. . . . It is of fundamental importance to have available a means of monitoring whether or not an astronaut's central nervous system is functioning in a manner that will permit him to meet these reponsiblities."

Colonel Simons described the newly developed techniques of attaining data on an astronaut's respiration, perspiration, skin reactions, and other physiological responses by taking measures available on the surface of the body and converting them to electrical signals for telemetering. He noted that miniaturization now permits the transmission of six or more FM channels simultaneously from a unit the size of two cigarette packages. However, he said, blood pressure sensing equipment has not yet been sufficiently minaturized to be feasible.

The space scientist pointed out that in time these techniques may be modified to assist physicians in monitoring critically ill patients. They also may be of value in diagnosis, he said, particularly for those conditions concerned with changes in emotionality and physiological responses to emotion.

Colonel John Paul Stapp, chief scientist, USAF Aerospace Medical Center, predicted that research may some day take the place of war. He noted that we now put into research the kind of support that we once put into a major war, observing that it took 19,000 people on the ground scattered over the face of the earth to get Colonel Glenn into the air. "It is no longer the case of the solitary alchemist working alone in his laboratory," Dr. Stapp concluded.

In tracing the evolution of space research, Dr. Stapp said that it took from 1944 to 1957 to put Simons on the edge of space in a gondola. But when Sputnik hit the press, said Stapp, things got going and in spite of the mad scramble at the time to set up a space program, the scientific effort continued uninterruptedly and brought us to the point of suborbital and orbital flights.

Today's space explorer will not bring back spices as did Columbus, said Stapp, and even if he were to return with the most precious of metals, it could not cover the cost of the trip.

Jackson attorney John H. Stennis, speaking for his father Senator John C. Stennis, told the audience, "The nation that controls outer space will eventually gain control of the world. Consequently, we must be first."

He said that when powerful instruments operate with such Swiss-watch accuracy that within five hours a man can be blasted into orbit, travel three times around the world at over 17,000 miles an hour and land—within seconds of the intended time and within a few miles of the intended place—it is all too clear that nuclear weapons in unlimited numbers can successfully destroy any earth target.

"Our mastery of the mysteries of outer space is our shield for peace," he concluded.

Dr. C. A. Sutherland, chairman, Council on Scientific Assembly, presided during the symposium and Dr. Lawrence W. Long, MSMA presi-

dent, presented the opening remarks. Dr. Long set the stage for the scientists commenting that "the conquest of space will not be purchased cheaply, but it would be far more costly not to purehase it at all."

He observed that the national commitment in the spaee program is an affirmative response to challenges in medieine, rocketry, electronics, exobiology, astronavigation, communieations, and nearly every scientific field in which man elaims sophistication. But without those physicians, said Dr. Long, who have pushed beyond the earth-bond peripheries of medical scienee, none of these aehievements would be possible or even useful because man, and man alone, must survive in order to master this fourth environment of space.

Scientific Sections Hear 13 Guest Speakers

Thirteen guest speakers from nine states and the District of Columbia appeared before the scientific sections during MSMA's 94th Annual Session.

Topics from appendieitis to arthritis to fertility were diseussed as the eight seetions, the heart of the scientific activity, heard a total of 30 essayists.

Physicians attending the Monday, May 7, meeting of the Section on Medieine heard Dr. Russell



Officers of Section on Medicine: Dr. Joe S. Covington of Meridian, chairman, and Dr. Raymond F. Grenfell of Jackson, outgoing chairman.



Officers of Section on Pediatrics: Dr. Frank M. Wiygul, Jr., of Jackson, outgoing chairman; Dr. Mary J. Ward of Corinth, secretary, and Dr. Joseph B. Miller of Jackson, chairman.

L. Ceeil of New York, the author of the nation's best known textbook on medieine. Dr. Cecil eame into prominence some 36 years ago when he wrote and edited his now famous *Textbook of*



Officers of Section on Surgery: Dr. James T. Thompson of Moss Point, outgoing chairman; Dr. Eugene A. Bush of Laurel, secretary, and Dr. Joseph G. McKinnon of Hattiesburg, chairman.

Medicine. The book, with its 160-odd authoritative artieles first appeared in 1926 and periodie revisions of it have appeared regularly ever since. Today, a large pereentage of all the medieal sehools in the nation and many of those in foreign

countries use it as a required text. MSMA leaders estimate that 75 per cent of the state medical group's membership studied the text.

Dr. Cecil's first paper, "Side Reactions in the Use of Cortisone Therapy in Arthritis," took up briefly the more important side reactions which occur in the use of cortisone in the treatment of rheumatoid arthritis. The two most disturbing reactions, according to Dr. Cecil, are peptic ulcer and osteoporosis. He also considered the therapy of these side reactions.

His second paper concerned "Facts and Fancies in the Treatment of Arthritis." In this paper the various fashions in the treatment of rheumatoid



Officers of Section on Eye, Ear, Nose and Throat: Dr. William T. Wilkins of Clarksdale, outgoing chairman; Dr. Thomas W. Wesson of Tupelo, chairman, and Dr. Emmett M. Herring of Hattiesburg, secretary.

arthritis over the past 50 years were discussed, starting with focal infection in 1913 and winding up with present day use of gold salts and steroid therapy.

Guest speakers before the Section on Pediatrics were Dr. Luther A. Longino of Boston, Mass., who spoke on "Appendicitis in Childhood" and Dr. Alvin J. Ingram of Memphis, Tenn. who spoke on "Developmental Abnormalities of the Lower Extremities in Children."

Dr. Longino told the group that "appendicitis in the pediatric age group is still of paramount importance because of its frequence. It is the most common condition requiring intra-abdominal surgery in infancy and children." He said that nearly half of the pediatric patients seen have rupture of the appendix before the time of hospitalization and recommended that any child suspected of appendicitis should be placed in the

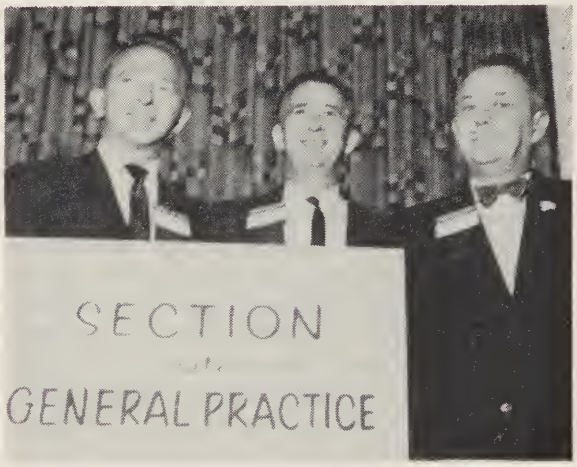


Officers of Section on Obstetrics and Gynecology: Dr. Blanche Lockard of Jackson, chairman; Dr. Frank L. Butler of McComb, secretary, and Dr. Michael Newton of Jackson, outgoing chairman.

hospital for observation if the local physician cannot make frequent house calls. In this way, he stated, operation can be undertaken while there is still an opportunity to do so before appendiceal rupture has taken place.

Departing from the tradition of the varied program, the Section on Surgery devoted its Wednesday meeting to the discussion of the treatment of automotive injury. Three out-of-state guests appeared before the section.

Dr. Fletcher D. Woodward of Charlottesville, Va., clinical professor of otolaryngology, Department of Otolaryngology, University of Virginia Hospital, spoke on "The Incidence of Injuries to



Officers of Section on General Practice: Dr. John Roy Bane of Jackson, secretary; Dr. William E. Lotterhos of Jackson, chairman, and Dr. John B. Howell of Canton, outgoing chairman.

the Face and Head." Dr. William G. Pace of Columbus, Ohio, assistant professor of surgery, Department of Surgery, Ohio State University Hospital, discussed "Thoracic Trauma," and Howard N. Schulz of Chicago, Ill., secretary, AMA Committee on Medical Aspects of Automotive Safety, talked on "Automotive Injury and Death: AMA's Program of Prevention."

Guest speakers before the Section on Eye, Ear, Nose and Throat included Dr. Francis E. LeJeune,



Officers of Section on Preventive Medicine: Dr. Percy T. Howell of Forrest, outgoing chairman; Dr. W. E. Riecken of Kosciusko, chairman, and Dr. Edwin M. Butler of Natchez, secretary.

Jr., of New Orleans, Louisiana, and Dr. Alston Callahan of Birmingham, Ala. Dr. LeJeune discussed "Tumors of the Larynx" and Dr. Callahan spoke on "Practical Applications of Basic Principles in Plastic Lid Surgery."

Members of the Section on Obstetrics and Gynecology heard Dr. Robert W. Noyes of Nashville, Tenn., professor and chairman, Department of Obstetrics and Gynecology, Vanderbilt University School of Medicine, talk on "The Endometrium and Fertility." Dr. John J. Murphy of Philadelphia, Pa., associate professor of urology and director, Division of Urology, Graduate Hospital and Graduate School, University of Pennsylvania School of Medicine spoke on "Urinary Tract Fistulas."

Guest speaker before the Section on General Practice was J. Clyde Swartzwelder, Ph.D., of New Orleans, professor and chairman, Department of Tropical Medicine and Medical Parasitology, Louisiana State University School of Medicine, who discussed "Recent Advancement in the Treatment of Intestinal Parasitic Infections."

Dr. Claire F. Ryder, Washington, D. C., of the Public Health Service talked with members of the Section on Preventive Medicine on "Responsibilities of Health Officers in the Area of Chronic Disease Control." Dr. Daniel Bergsma of New York, associate director of medical care, the National Foundation, discussed "Virus Diseases—Crippling Effects and Recent Research."

New officers named during the section meetings are:

Pediatrics—Dr. Joseph B. Miller, Jackson, chairman; Dr. Mary J. Ward, Corinth, secretary.

Medicine—Dr. Joe S. Covington, Meridian, chairman; Dr. James P. Holloway, Jackson, secretary.

Surgery—Dr. Joseph G. McKinnon, Hattiesburg, chairman; Dr. Eugene A. Bush, Laurel, secretary.

Eye, Ear, Nose and Throat—Dr. Thomas W. Wesson, Tupelo, chairman; Dr. Emmett M. Herring, Jr., Hattiesburg, secretary.

Obstetrics and Gynecology—Dr. Blanche Lockard, Jackson, chairman; Dr. Frank L. Butler, McComb, secretary.

General Practice—Dr. William E. Lotterhos, Jackson, chairman; Dr. John Roy Bane, Jackson, secretary.

Preventive Medicine—Dr. W. E. Riecken, Kosciusko, chairman; Dr. Edwin M. Butler, Natchez, secretary.

First Robins Award Goes to Dr. Ross

In a premiere presentation, Dr. Thomas G. Ross of Jackson was given the first annual Robins Award during MSMA's 94th Annual Session banquet, May 9. The honor, established as a joint project by the A. H. Robins Company and the association, is conferred for distinguished and outstanding community service.

Dr. Lawrence W. Long, MSMA president, who made the presentation, announced that the association's three vice presidents had served as the board of judges. The six nominees were Dr. Frank M. Davis of Corinth, Northeast Mississippi Medical Society; Dr. Sam E. Field of Centreville, Amite-Wilkinson Counties Medical Society; Dr. Walter E. Johnston, Vicksburg, West Mississippi Medical Society; Dr. Howard A. Nelson of Greenwood, Delta Medical Society; Dr. William T. Wilkins of Clarksdale, Clarksdale and Six Counties Medical Society, and Dr. Ross, Central Medical Society.

In selecting the awardee, the Board of Judges stated that "early in its deliberations, the Board of Judges recognized the enormity of its task in selecting from among the six nominees a single individual to receive this award. Having made this difficult decision, it is the recommendation of the Board that the remaining nominees be considered again in 1963 by their respective component medical societies because of their outstanding contributions."

Criteria for the award as established by MSMA's Board of Trustees are:

1. The awardee must be a member of the association both at the time the distinguished community service was rendered and when the award is made.

2. The service recognized must be entirely apart from purely professional achievement in scientific research, development of new medical and surgical technics, and attainment of prominence in scientific endeavor, since suitable awards in these connections already exist.

3. The service recognized should have benefited the local or state communities in a civic, cultural, or general economic sense. It should have been performed voluntarily.

4. The service need not, however, have been a single achievement, since many outstanding citizens contribute in many ways to community betterment through a series of services.

5. Nominees for the award must be chosen by their respective component medical societies.

A native Mississippian and a graduate of Millsaps College and the Tulane University School of Medicine, Dr. Ross has served as a director and president of the Jackson Fondren Civitan Club; governor of the Mississippi Civitan District, Civitan International, and is active in his Parent-Teacher Association, the Y.M.C.A., and the Jackson Chamber of Commerce. He has served as chairman of the professional division of the Jackson United Givers Fund.

Dr. Ross is past president of the Mississippi College Alumni Association and under his leadership, substantial alumni support was organized for strengthening the expansion and endowment programs of the college. He serves as team physician for various Millsaps College athletic groups.

Dr. Ross contributes his professional services in the sense of community betterment to Friends of Alcoholics, the Little Red Schoolhouse for the mentally retarded, and the Cerebral Palsy Hospital.

Williard L. Duvall, area manager for the A. H. Robins Company, assisted Dr. Long in making the presentation.

Among other prizes presented at the banquet were the annual Gold Medal Award for the best scientific exhibit by a member of MSMA and the annual exhibit prize. The 1962 Gold Medal went to the Field Clinic in Centreville for its display on "Jaundice—Prehepatic, Hepatic, Posthepatic."

This year's exhibit prize, a matched pair of gold Colt .44 models, went to Dr. W. E. Caldwell of Baldwyn.



"What Do You Recommend?"

13 Specialty Groups Meet During Annual Session

A record number of state specialty societies met concurrently with MSMA's 94th Annual Session, May 7-10 in Jackson. Thirteen medical groups scheduled meetings during the week for scientific presentations, business sessions, and fellowship programs.

In its meeting Monday, May 7, the Mississippi Association of Pathologists named Dr. Robert S. Cooke of Hattiesburg president. Other officers are Dr. Elizabeth Ferrington of Jackson, president-elect, and Dr. William P. Featherston of Jackson, secretary-treasurer.

Opening the pathologists' meeting, Dr. Lawrence W. Long, MSMA president and chairman of the Committee on Publications, presented the group with a certificate of achievement for their work in preparing a monthly clinicopathological conference for publication in JOURNAL MSMA.

Other societies meeting on Monday were the Mississippi Urological Association, the Mississippi

Society of Internal Medicine, the Mississippi Chapter, American College of Surgeons, and the Mississippi Chapter, American College of Chest Physicians.

New officers of the urologists are Dr. Sidney Graves of Natchez, president; Dr. Cyrus C. Johnson, Jr., of Jackson, president-elect, and Dr. Gerald Wessler of Gulfport, secretary. The internists named Dr. Thurman T. Justice, Jr., of Gulfport, president; Dr. Frederick E. Tatum of Hattiesburg, president-elect, and Dr. S. H. McDonnieal, Jr., of Jackson, secretary.

In a meeting on Saturday, May 5, the Mississippi Society of Anesthesiologists named Dr.



Dr. Lawrence W. Long, MSMA president, presents a certificate of appreciation to Dr. Lawson C. Costley, president of the Mississippi Association of Pathologists. The certificate recognizes the group's efforts in preparing a monthly clinicopathological conference for publication in JOURNAL MSMA.

Happy Gee of of Jackson President and Dr. Marion Carnes of Jackson, vice president. Other officers are Dr. Curtis W. Caine of Jackson, secretary; Dr. Leonard W. Fabian of Jackson, delegate to the American Society of Anesthesiologists, and Dr. Thomas J. Marland of Jackson, alternate delegate.

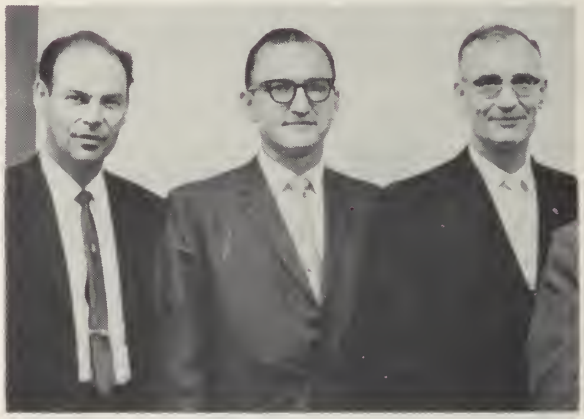
Tuesday meetings included those of the Mississippi Radiological Society and the Mississippi Orthopaedic Society. New officers of the Radiological group are Dr. Bernard T. Hickman of Jackson, president; Dr. Elmer Harris of Jackson, vice president, and Dr. Jack K. Goodrich of Jackson, secretary-treasurer.

Members of the orthopaedic society named Dr. Griffin Bland of Gulfport, president; Dr. James C. Bass of Laurel, vice president, and Dr. Edward Attix of Hattiesburg, secretary.



Three Mississippi physicians and their Texas guest get together during the May 8 meeting of the University of Mississippi Medical Alumni. From left to right are Dr. G. Swink Hicks, MSMA past president; Dr. William E. Lotterhos, president-elect of the alumni group; Dr. Howard A. Nelson, president of the alumni; and Dr. Hubertus Strughold, chairman, Advanced Studies Group, Aerospace Medical Center, Brooks AFB, Texas.

At its meeting on Wednesday, May 9, the Flying Physicians Association chose Dr. Curtis Caine of Jackson president and Dr. James Royals of Jackson, vice president. Dr. Sam Johnson of



Officers of the Mississippi Society of Internal Medicine are shown at their May 7 meeting. From the left are Willard H. Boggan, Jr., of Jackson, outgoing president; Dr. Frederick E. Tatum of Hattiesburg, president-elect; Dr. S. H. McDonnieal, Jr. of Jackson, secretary. The stray arm belongs to Dr. Russell L. Cecil of New York who moved—but not quite out of camera range—as the picture was snapped. Dr. Cecil was a featured speaker before the society and before the MSMA Section on Medicine.



Officers of the Mississippi Urological Association pause for the camera following the group's meeting May 7. From the left are Dr. Sidney Graves of Natchez, president; Dr. Gerald Wessler of Gulfport, secretary, and Dr. Julian Wiener of Jackson, outgoing president.

Jackson is secretary and Dr. Richard Riley of Meridian is president-elect.

Thursday meetings included the annual luncheon of the Mississippi Academy of General Practice.

Alumni groups holding fellowship hours and banquets during the week were the University of Mississippi Class of '42 and '54, University of Mississippi Medical Alumni, University of Tennessee Medical Alumni, and the Tulane University Medical Alumni.

Nuclear Medicine to Be Theme Of AMA Annual Meeting

"Medicine in the Atomic Age" is the theme of the American Medical Association's 111th annual convention which will be held at McCormick Place in Chicago, June 24-28.

In support of that theme, a special half-day program entitled "Nuclear Medicine—Present Achievements and Future Promise," will be presented on Tuesday morning, June 26, under sponsorship of the AMA Council on Scientific Assembly.

Program chairman is Dr. Lee E. Farr, of the Brookhaven National Laboratories, Upton, N. Y., a member of the council, and the moderator will be Dr. Stuart W. Lippincott, also of Brookhaven.

With more than 500,000 medical patients a year in the United States now receiving radioactive tracers for diagnostic purposes and with another 100,000 getting isotope radiation therapy, radioisotopes can no longer be considered curiosities.

The total quantity of radioisotopes sold to industrial and research organizations in the United States by the Atomic Energy Commission over the past 15 years has amounted to about 1,300,000 curies of radioactivity. This year alone U. S. user are expected to buy more than 2,000,000 curies worth.

The American Medical Association's nuclear medicine program will be one of the highlights of the doctors' convention. Subjects and speakers are:

—"The Place of Cobalt 60 in the Management of Human Cancers" by Dr. Gilbert H. Fletcher, of the University of Texas, M. D. Anderson Hospital and Tumor Institute.

—"The Present Place of Radioactive Iodine in Management of Thyroid Disease" by Dr. Brown M. Dobyns of the Cleveland Metropolitan General Hospital.

—"Why Radioactive Isotopes in Diagnosing Liver and Kidney Disorders?" by Dr. George V. Taplin, of the University of California Medical Center, Los Angeles.

—"Radioactive Fallout—Its Significance for the Practitioner" by Dr. Charles L. Dunham, of Washington, D. C.

—"Has the Nuclear Reactor a Future Place in Cancer Therapy?" by Dr. Farr of Brookhaven.

—"Alpha Particle Radiation in the Pituitary in Various Chemical States" by John H. Lawrence of the University of California at Berkley.

Side by side with surgeons, radiation specialists have made great strides in increasing the power and effectiveness of atomic radiation. Especially in the last 20 years, developments in nuclear physics and high voltage engineering have resulted in more efficient modalities of delivering radiation for the management of human cancer.

At the Brookhaven National Laboratories, the first atomic reactor designed exclusively for medical treatment was built. The reactor, actually a small atomic power plant, produced powerful gamma rays and neutrons for the treatment of deep-seated cancer. Neutrons, acting as "atomic guided missiles," go straight to the hidden cancer tissues without harming healthy tissues. The reactor also produces radioactive isotopes for treating cancer.

One of these isotopes is known as Cobalt 60. Radioactive Cobalt 60 machines, the most powerful of the artificially produced nuclear radiation for cancer treatment, have been installed in many institutions across the country. The source of radiation is a cylinder of cobalt, one-third of an inch in diameter and one and one-tenth inches

long. Its small size permits the technician to pinpoint a radiation beam to the tumor more accurately than is possible with other techniques.

Dr. Fletcher, one of the lecturers on the AMA program, said that Cobalt 60 therapy "has been a great step forward in the management of previously unfavorable types of cancers such as those of the oropharynx, the advanced cancers of the uterine cervix, and those of the urinary bladder."

"For relief of pain or for prolongation of life by remissions, as in the lymphomas, it is easier to deliver the proper dose with much less discomfort to the patient," he said, adding:

"One of the most promising lines of clinical investigation is the combination of preoperative irradiation in surgery of many cancers which yield poor results to one of the disciplines alone. An example of preoperative radiation studies is found in lung cancer, cancer of the urinary bladder, and cancer of the breast."

Only recently researchers at the University of Maryland reported that they have been using Cobalt radiation, preoperatively, on lung cancer patients for the past six years. The purpose of the radiation is to kill cancer cells in surrounding tissue that the surgeon may miss.

Of 45 patients treated, 12 are alive from one to three years. In the studies so far, the cure rate has been increased to about 10 per cent. Only about five in 100 lung cancer victims live five years or more.

In his lecture at the AMA meeting, Dr. Farr will report on a new radiation technique in attacking brain tumors.

Boron salt is injected into patients; their brain tumors are then exposed to neutrons from a nuclear reactor. Although the mechanism is not clear so far, it appears that boron and neutron radiation together produce an effect that neither produces alone.

Studies at Brookhaven National Laboratories already encompass 10,000 mice and 51 cancer patients.

An unusual fact about the boron-neutron treatment is that it can be used after maximum doses of other radiation have been tried and failed. Also, no damage is done to surrounding healthy tissue.



Copyright 1962. Mississippi State Medical Association

Walking for exercise isn't helping, Doctor. Before I go a block, somebody picks me up."

Nation's Top Scientists to Take Part in AMA Research Forum

More than 200 of the nation's top scientists, representing a cross-section of nearly every medical specialty, will present new and original papers at 12 different sessions at the American Medical Association's 111th annual convention in Chicago, June 24-28.

The papers, which will be offered on Tuesday, Wednesday and Thursday, June 26-27-28, at McCormick Place, are part of a new Research Forum, sponsored by the AMA Council on Scientific Assembly. The Forum was held for the first time at the AMA New York session last June.

After reviewing hundreds of scientific manuscripts, a committee headed by Dr. Edwin H. Ellison, of Marquette University School of Medicine, Milwaukee, has completed selection of participants for the Forum program. Selections were based primarily on quality and timeliness of the author's original investigation.

The Research Forum idea was conceived because AMA Council members felt that it would attract and bring together a variety of top research workers from many specialty areas who have a mutual interest in common medical problems.

This year a three-man panel of experts is being chosen for each of the 12 sessions to discuss the presentations.

Subjects to be covered the first day, Tuesday, will be cancerous growths and peptic ulcer and other problems related to the stomach. The second day, Wednesday, will be devoted to heart disease and transplantation of tissue and organs as well as rheumatic and muscle diseases. On Thursday, the third day, the participants will discuss liver diseases and anesthesia as well as diseases causing abnormally low body temperature.

In outlining the Research Forum program, Dr. Ellison, who is professor of surgery at Marquette, listed five principal objectives:

1. To promote an exchange and coordination of information including newer methods, techniques and the results of research in progress from all sources bearing directly or indirectly on the conquest of disease.

2. To facilitate the flow of up-to-date information from investigators to those engaged in the care of patients and to orient the investigators on the problems facing today's clinician.

3. To provide additional opportunities for young investigators to present their work.

4. To identify and promote new areas of research.

5. To find and motivate intelligent young men and women to seek a career in one of the medical sciences, including research.

Dr. George R. Meneely, Chicago, secretary of the AMA Department of Scientific Assembly, said that "the Research Forum is a monumental step in giving physicians the best information possible on original research."

Continuing, Dr. Meneely said:

"By attending Forum sessions, American physicians will be given the opportunity of taking front row seats from which to view the vast panorama of medical progress. What they hear will have great impact for the good of their patients and, more importantly, the discussions will stimulate their investigative minds and bend their thinking to many problems. What they hear, too, at these Forum sessions, will be startling in many ways and neither they nor their patients will have to wait years to benefit from gems of scientific wisdom laboriously funneled through customary channels.

"All of this points to the important fact that physicians must not permit their professional duties to devour them; they must forever study and investigate the phenomena and mechanism of disease, thereby improving the science and art of medicine. The major contribution of the 20th century to medicine is increasing knowledge of the physiology and management of disease. The American Medical Association's role in sponsoring better scientific programs presently and in the future helps all physicians to accept the responsibility of being continuous and life-long students."

Highlighting the Research Forum program will be lectures on the following subjects:

—Cancer and thyroid function based on laboratory studies of 3,290 patients.

—Evaluation of the use of some drugs and compounds in the treatment of gastrointestinal cancer.

—Diagnosis of gastric and other forms of cancer by balloon radioautography.

—The effect of diets on cholesterol levels of men.

—Computer analysis of radioactive isotope tracer studies in man.

—The effect of cortisone and other hormones in the formation of peptic ulcers in animals.

—Use of a new enzyme agent in the treatment of pancreatic disease.

—Hypersensitivity to various foodstuffs as a factor in ulcerative colitis.

Thoracic Society Names Officers



Principals in the April 18 Annual Meeting of the Mississippi Thoracic Society are shown above. Seated left to right are Dr. John F. Busey, newly elected president, and Dr. Fred Allison, immediate past president. Standing left to right are Dr. John Wyatt of St. Louis, featured speaker; Dr. Jack Herring, vice president, and Dr. Blair Batson, executive committee members. Other officers elected not pictured are Dr. Myra D. Tyler, secretary-treasurer, and Dr. Thomas M. Blake, executive committee member.

—Congenital malformations of the heart and blood vessels, including prevalence, incidence at birth and life expectancy in San Francisco.

—Evaluation of reimplantation of lungs in animals.

—The effects of cobra venom on the heart and vascular system.

—The process of perceptions or professionalization that transforms a student into a physician.

—Wound infection following potentially contaminated abdominal operations.

—Whole stomach grafting, plus irradiation, in dogs as a possible cure of ulcers in man.

—Studies dealing with the mechanisms which cause or contribute to physical incapacitation of pilots in flight.

—The effect of immediate short-term cooling on extensive burns.

Chest Physicians Plan Annual Meeting in Chicago

The American College of Chest Physicians will hold its five-day annual meeting at the Morrison Hotel, Chicago, June 21-25. Dr. Hollis E. Johnson, Nashville, Tenn., president of the college, will preside.

A fine scientific program has been arranged by Dr. Joseph W. Peabody, Washington, D. C., program chairman. This will include postgraduate seminars, open forums, a cine symposium, round table luncheon sessions, and motion pictures and will cover such topics as management of the tuberculous patient with drug-resistant organisms, underwater physiology, incompetent cardia, chest roentgenology, cardiopulmonary trauma, histoplasmosis, congenital heart disease, and postoperative care in cardiac surgery.

The highlight of the social program will be the annual Presidents' Banquet on Sunday, June 24, at which the College Gold Medal will be awarded to a physician for meritorious achievement in the field of chest diseases. On the same evening the annual convocation will be held and Certificates of Fellowship in the college will be awarded to 100 physicians.

On Monday, June 25, there will be a joint meeting between the American College of Chest Physicians and the American Medical Association at McCormick Place, Chicago's new convention center. This program will include, in addition to the regular scientific sessions, six round table luncheon sessions and will deal with such topics as surgical treatment of acquired cardiovascular diseases, special problems in diseases of the chest, and inhalation therapy.

The always popular Fireside Conferences, long a feature of the chest physicians' meetings, will again be part of the joint meeting with the AMA. These will be held at the Morrison Hotel. Among the topics to be included in the thirty round table discussion sessions are: bronchial carcinoma, allergic bronchitis and allergic pneumonitis, screening tests for emphysema, indications for cardiac surgery in the first year of life, impending myocardial infarction, esophageal problem cases, and the smoking controversy.

Physicians attending these sessions are encouraged to ask questions and comment on the subjects. They are free to move from one table to another if and when they choose.

Additional information may be obtained by writing Murray Kornfeld, Executive Director, American College of Chest Physicians, 112 East Chestnut Street, Chicago 11, Ill.

Dr. Crenshaw Inaugurated MSMA President

Dr. C. P. Crenshaw, a member of the MSMA Board of Trustees for 15 years, was inaugurated president at the close of the 94th Annual Session held May 7-10 in Jackson.

Dr. Crenshaw received his B.S. degree from the University of Mississippi and his medical degree from the University of Tennessee in 1944. He interned at the U. S. Naval Hospital, Oakland, Calif.



Dr. Crenshaw opened his practice in Collins in 1946 and has been on the staff of the Covington County hospital since it opened in 1951.

He is a past president of the Mississippi Academy of General Practice and is a member of the South Mississippi Medical Society, the Southern Medical Association, the American Medical Association, and the American Academy of General Practice.

A native of Lucedale, Dr. Crenshaw is married to the former Miss Rubertha Beard of Oxford and they have three children, Mrs. L. P. Duval of Dayton, Ohio, Jyntre Crenshaw, and Karen Crenshaw.

Mrs. Tatum Named To Head Auxiliary

Mrs. A. T. Tatum of Hattiesburg will serve the Woman's Auxilliary as president during 1962-63. She succeeds Mrs. John G. Egger of Drew.

Mrs. Tatum has worked with the Auxiliary as bulletin chairman, revisions chairman, recording secretary, and councilor for the seventh district.



She is also active with the Red Cross as chairman of nursing services, her local P.T.A., and the Main Street Methodist Church and serves as Brownie leader and Scout den mother.

A native of Gadsden, Tenn., Mrs. Tatum is a graduate of the Baptist Hospital School of Nursing, Memphis, Tenn. She and Dr. Tatum have three children, Martha Ann, 15; Nancy, 12, and A. T., Jr., 10.

Trustees of Mental Institutions Check Report



Dr. James Grant Thompson of Jackson, left, and Dr. J. K. Avent of Grenada, members of the Board of Trustees of Mississippi Mental Institutions go over a progress summary during MSMA's 94th Annual Session. Dr. Avent is currently serving as chairman of the board.

Winners of AAPS Contest Presented to MSMA House

Winners in the 1962 state essay contest sponsored by the Association of American Physicians and Surgeons were presented during the May 10 meeting of MSMA's House of Delegates.

Dr. Robert J. Moorhead of Yazoo City, AAPS past president, introduced Kathy Caldwell of Marks, first place winner, and Charles Cocke of Clarksdale, second place winner. Lydia Anne Lea of Byhalia, third place winner, was unable to attend.

Miss Caldwell wrote on "The Advantages of the American Free Enterprise System over Communism;" Mr. Cocke and Miss Lea discussed on "The Advantages of Private Medical Care."

The students were presented checks and certificates for their achievement.

Health Benefits Up In All 50 States

Each of the nation's 50 states showed an increase during 1961 in the amount of health insurance benefits received from insurance companies, according to the Health Insurance Institute in its annual estimate of state benefit payments.

The increases ranged from a high of 29.0 per cent in the states of Alaska and New Mexico down to 0.8 per cent in West Virginia.

The total amount of health benefits paid to the American public by insurance companies in 1961 was $3,479,204,000, a climb of 10.6 per cent over the $3,147,124,000 distributed the year before.

During 1961, health benefit payments by insurance companies averaged out to $9.5 million a day, an increase of $900,000 a day over 1960. The Institute estimated that, with the inclusion of benefits paid by Blue Cross-Blue Shield and other health care plans, health benefit payments by all insuring organizations in 1961 totaled $6.3 billion, up from 1960's total of $5.7 billion.

Although the residents of Alaska and New Mexico recorded the greatest percentage increase in benefit payments from insurance companies last year, California led all other states in terms of benefit dollars received—some $425 million. New York followed with more than $360 million.

AUXILIARY

Woman's Auxiliary Meets For 39th Session

The 39th Annual Session of the Woman's Auxiliary to the Mississippi State Medical Association opened May 7 at the King Edward Hotel in Jackson, meeting concurrently with MSMA's session.

During the Tuesday activity, Mrs. A. T. Tatum of Hattiesburg assumed the auxiliary presidency. Mrs. Tatum, who succeeds Mrs. John G. Egger of Drew, was installed along with other auxiliary officers by Mrs. Robert D. Croom, Jr., of Maxton, N. C., director of the Woman's Auxiliary to the AMA.

Serving with Mrs. Tatum will be Mrs. M. S. Riddell of Winona, president-elect; Mrs. John G. Egger of Drew, first vice president; Mrs. Herman E. Kellum of Vicksburg, second vice president; Mrs. J. Heard Gaddy of Gulfport, third vice president; Mrs. H. H. McClanahan of Columbus, fourth vice president; Mrs. Robert D. McBroom of Centreville, recording secretary, and Mrs. Thomas Safley of Jackson, treasurer.



Installed at the MSMA Woman's Auxiliary luncheon are the officials for the coming year, from left, seated, Mrs. A. T. Tatum of Hattiesburg, president; Mrs. Mal S. Riddell of Winona, president-elect; standing; Mrs. John G. Egger of Drew, first vice president; Mrs. J. H. Gaddy of Gulfport, third vice president; Mrs. H. H. McClanahan, Jr., of Columbus, fourth vice president; Mrs. R. D. McBroom of Centreville, recording secretary, and Mrs. Thomas Safley of Jackson, treasurer.

In Mrs. Egger's report of her year's work as head of the state auxiliary, she noted that membership had increased to 838 and that all auxiliary members had cooperated in community service. She reported that the Preventorium was mailed an interest check of $306.04 and that a total of $840.00 was contributed by the auxiliary to the American Medical Education Foundation. She pointed out that the Auxiliary aids in community service by work with the PTA, Red Cross, Blood Banks, civic clubs, scouting, Tuberculosis Association, Heart Fund, and United Givers, as well as numerous other activities.

Doctor Draft Pressures Eased In Training, 'Shortages'

Physicians called to active service under the doctor draft have three alternatives available to ameliorate effects of their absence on hospital staff and local communities in need of medical service. Information on appeal and deferment procedures has just been released through the American Medical Association's Council on National Security.

Because physicians, dentists, and allied professional personnel are generally liable for military service until age 35, the government affords them these considerations:

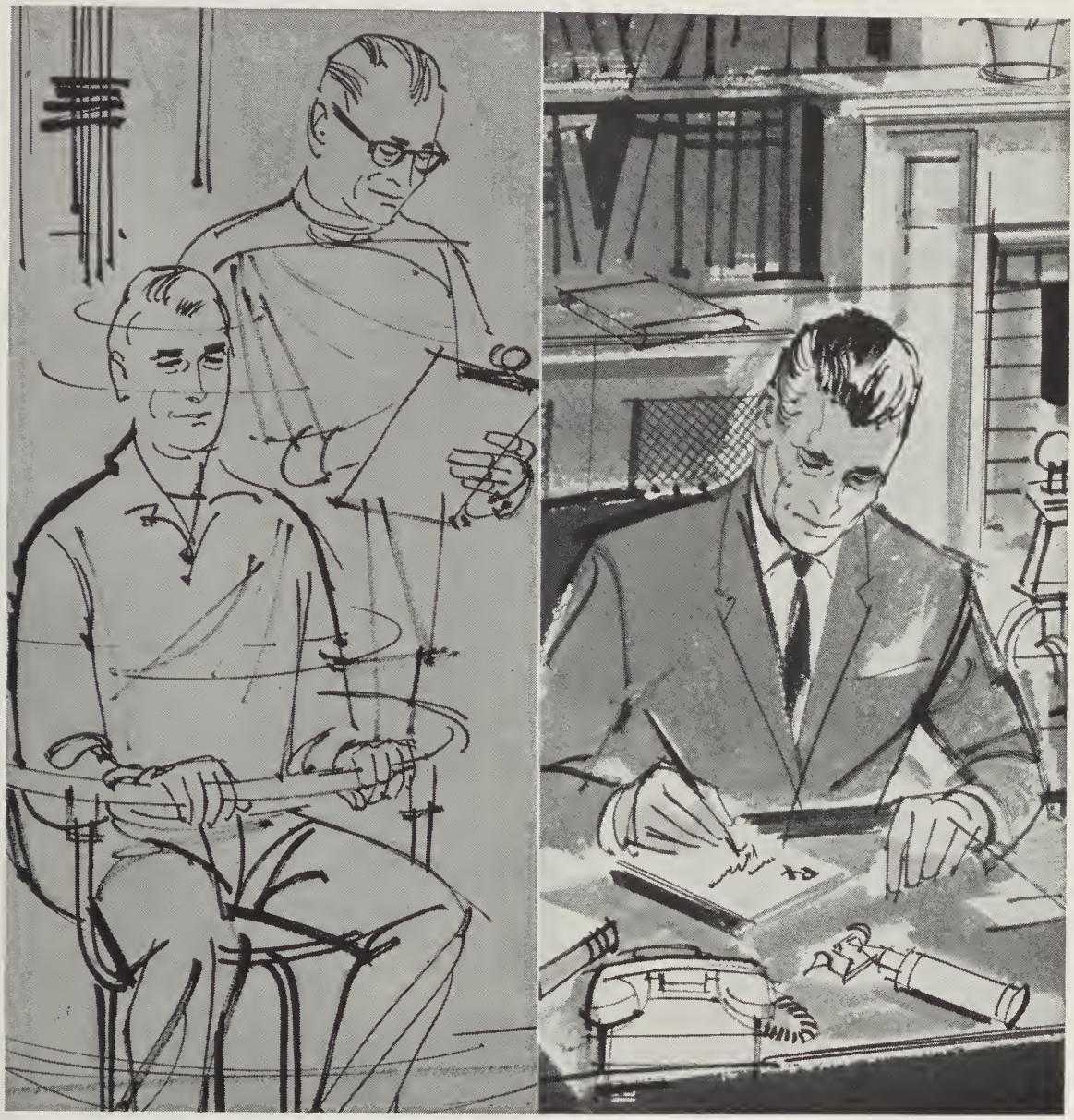
—Those called from a reserve status as filler personnel on or after Sept. 1, 1961, who have completed 21 months of service are given the opportunity for early release.

—Those reserve officers on active duty serving only their required two years are released at the end of their tours.

Three doctor draft calls were issued during 1961, the first such calls necessary in several years. The increased requirement for additional professional personnel, the council says, was partially met by discontinuing acceptance of regular medical officer resignations, denying release of reserve officers who had volunteered for active duty, call up of National Guard and reserve units with medical officers, and draft of 1,025 physicians.

Council spokesmen said that new appeal and deferment mechanisms include appeal of 1-A classification assigned interns who have been accepted for approved residencies, requests for determination of essentiality in doctor-short communities, and requests for delay in reporting for active duty.

The American Hospital Association has made similar information available to administrators of member institutions conducting training programs.



in 1948
unique therapeutic achievement

in 1962
universal therapeutic acceptance

Dramamine® in vertigo

brand of dimenhydrinate

world standard for control of vertigo, nausea and emesis associated with

■ Motion Sickness ■ Postoperative States ■ Labyrinthitis ■ Hypertension ■ Radiation Sickness ■ Ménière's Syndrome ■ Postfenestration Syndrome ■ Antibiotic Therapy ■ Migraine Headache ■ Pregnancy ■ Narcotization ■ Electroshock Therapy

Tablets/Liquid/Ampuls (for I. M. or I. V. use)/Supposicones®

SEARLE

Research in the Service of Medicine

Control Constipation Without Interference

PRULET®



A MILD REFLEX ACTING LAXATIVE . . .

does not interfere with other conditions under treatment.

The active ingredient of Prulet,® Bis(p-acetoxyphenyl) -oxindole, is analogous to a substance found in prunes. Completely recoverable from the feces, it has no deleterious effect on the vital organs. It is completely free from side effects, such as coloring of the urine, hyperemia and flatulence. During lactation no portion of the active ingredient of Prulet® appears in the milk and it has no effect on the nursing infant.

PRULET® . . .

provides therapeutic effectiveness with milligram dosage.

EASY TO TAKE: Prulet® tablets are small, odorless, and tasteless.

SUPPLIED: Bottles of 60.

EACH TABLET CONTAINS:
Bis (p-acetoxyphenyl)-oxindole . . . 5 mg

DOSAGE: One or two tablets before retiring until regularity is achieved or as directed by a physician.

PRECAUTIONS: Presence of nausea, vomiting, abdominal pains, or other symptoms of appendicitis.

COMPLETE LITERATURE AND SAMPLES UPON REQUEST

Mission Pharmacal Co.
SAN ANTONIO 6, TEXAS

PR-61

Dr. Middleton Named President of North Central

Dr. William A. Middleton of Winona was named president of the North Central Medical Society at the group's April meeting in Durant. Dr. R. B. Townes of Grenada was re-elected secretary.

The program consisted of papers given by Dr. Joel L. Alvis, Dr. John G. Caden, and Dr. William Featherston, all of Jackson.

Dr. Naef Addresses East Mississippi Society

Physicians from a six-county area were in Meridian for the April meet of the East Mississippi Medical Society.

A scientific program was presented by Dr. Richard W. Naef of Jackson, who discussed newer aspects of cerebral vascular disease.

The 40 members in attendance came from Lauderdale, Newton, Clarke, Neshoba, Kemper, and Winston counties, according to Dr. Hugh S. Rayner, secretary.

Burdick



Choose the Burdick UT-400 Pulsed Ultrasound Unit for more *effective* treatment of musculoskeletal dysfunctions.

Write us for descriptive literature and prices.

We will be glad to demonstrate the unit in your office at a time convenient to you.

KAY SURGICAL INC.
663 North State St. • Jackson, Miss.



Emotional control regained...a family restored... thanks to a doctor and 'Thorazine'

During the past seven years, 'Thorazine' has become the treatment of choice for moderate to severe mental and emotional disturbances because it is:

- specific enough to relieve underlying fear and apprehension
- profound enough to control hyperactivity and excitement
- flexible enough so that in severe cases dosage may be raised to two or three times the recommended starting level

Experience in over 14,000,000 Americans confirms the fact that, in most patients, the potential benefits of 'Thorazine' far outweigh its possible undesirable effects.

Smith Kline & French Laboratories

Thorazine®

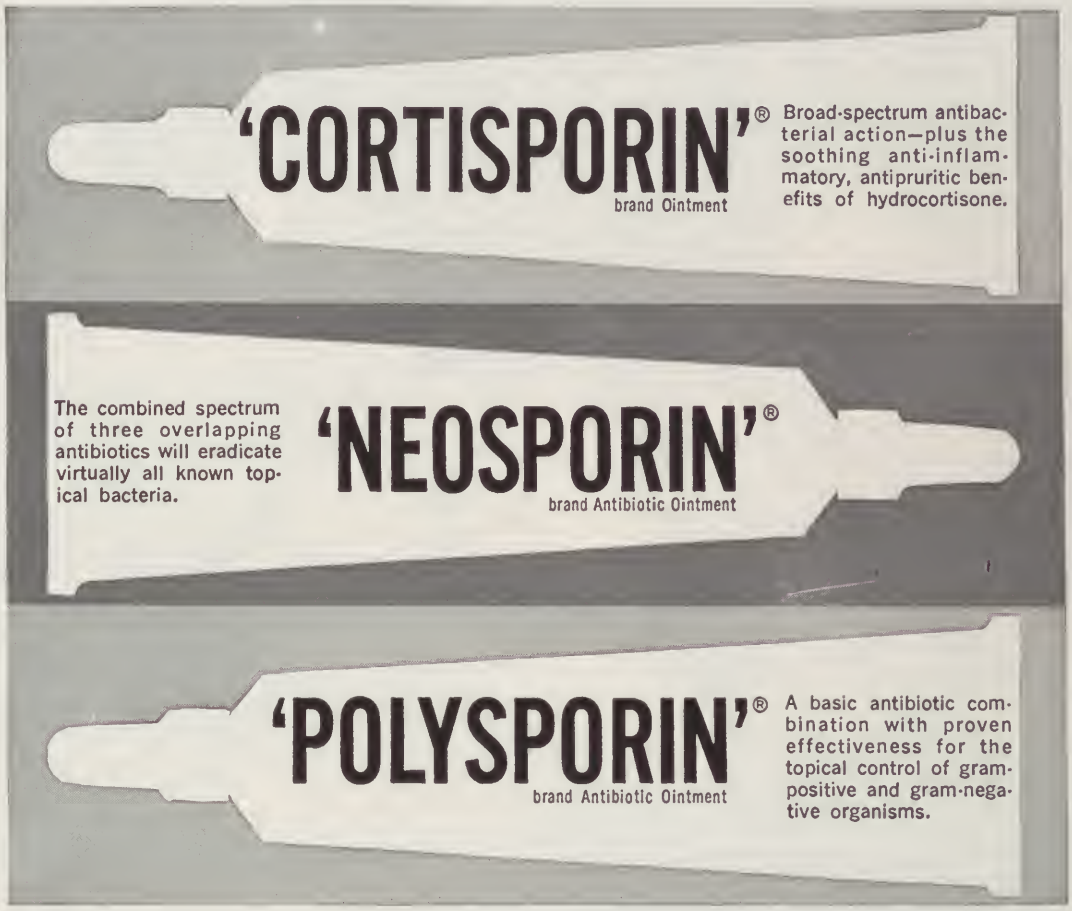
brand of chlorpromazine

A fundamental drug
in both office and hospital practice

Posed by professional models.

For prescribing information, please see PDR or SK&F literature.

'B. W. & Co.' 'Sporin' Ointments rarely sensitize . . . give decisive bactericidal action for most every topical indication



Contents per Gm.	'Polysporin'®	'Neosporin'®	'Cortisporin'®
'Aerosporin'® brand Polymyxin B Sulfate	10,000 Units	5,000 Units	5,000 Units
Zinc Bacitracin	500 Units	400 Units	400 Units
Neomycin Sulfate	—	5 mg.	5 mg.
Hydrocortisone	—	—	10 mg.
Supplied:	Tubes of 1 oz., ½ oz. and ⅛ oz. (with ophthalmic tip)	Tubes of 1 oz., ½ oz. and ⅛ oz. (with ophthalmic tip)	Tubes of ½ oz. and ⅛ oz. (with ophthalmic tip)

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York



SYNergized
aspIRIN

Synirin®

Acetylsalicylic acid, 5 gr.
Pentobarbital (acid), 1/8 gr.

Simultaneous action beginning promptly
lasting four or five hours

Synirin was formulated
for a two-tablet dose for adults
and a one-tablet dose
for children from 5 to 12 years.
May be repeated every four hours
for the relief of pain

Dispensed in bottles of 100 and 1000 tablets

WM. P. POYTHRESS & CO., INC., RICHMOND, VIRGINIA
Manufacturers of ethical pharmaceuticals since 1856



Out-Patient Clinic and Offices

HILL CREST SANITARIUM

Established in 1925

FOR NERVOUS AND MENTAL DISEASES
AND ADDICTION PROBLEMS

James A. Becton, M.D.
P. O. Box 2896, Woodlawn Station, Birmingham 6, Ala.

James Keen Ward, M.D.
Phone 595-1151 and 595-1152

APPALACHIAN HALL

ESTABLISHED — 1916

ASHEVILLE NORTH CAROLINA



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.

Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.

Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

Wm. Ray Griffin, Jr., M.D.
Robert A. Griffin, M.D.

Mark A. Griffin, Sr., M.D.
Mark A. Griffin, Jr., M.D.

For rates and further information, write: APPALACHIAN HALL, ASHEVILLE, N. C.



BUILDS *body tissue...*

BUILDS *sense of well-being in the weak and debilitated*

WINSTROL®

BRAND OF STANOZOLOL

new physiotonic

NOW—the **highest** anabolic plus the **lowest** androgenic activity* with well-tolerated WINSTROL therapy

...for elderly patients with anorexia, asthenia and general debility—
MARKED IMPROVEMENT IN APPETITE, STRENGTH AND SENSE OF WELL-BEING

Fourteen patients, age 66 to 77, treated with Winstrol, usually in a dosage of 6 mg. daily, for various periods in order to correct underweight, weakness and chronic fatigue. Marked improvement occurred in appetite, sense of well-being and strength; almost all patients gained weight.

...for patients with osteoporosis and arthritis—
RELIEF OF PAIN, IMPROVEMENT IN MOBILITY

Twenty-one patients with arthritis treated with Winstrol for pain and limited mobility due to osteoporosis. With few exceptions, dosage was 6 mg. daily; duration of treatment varied from a few weeks to 6 months. In 8 patients relief of symptoms was excellent and in 6 moderate. Of the 7 persons in whom no relief was obtained, 5 had received treatment for less than one month and some had been given doses below 6 mg.

...for patients with malignant disease—
NOTABLE WEIGHT GAINS, INCREASED APPETITE AND SENSE OF WELL-BEING

Twenty-six patients, mostly women, weak, emaciated and seriously ill, were administered Winstrol in dosage of 6 mg. daily for periods extending up to 14 months (average 6.7 months). Notable weight gains occurred. Patients showed increased appetite, alertness and confidence, better appearance, increased mobility and tolerance to pain.

...for patients with chronic, non-malignant disorders—
IMPROVEMENT IN WEIGHT AND GENERAL ACTIVITY, INCREASED SENSE OF WELL-BEING

Eight patients with advanced tuberculosis, bronchopulmonary disease, nephritis and ulcerative colitis treated with 6 mg. of Winstrol daily for from 3 to 4 months. Gains in weight varied from 6 to 27 pounds with increased sense of well-being and improvement in general activity.

...for undernourished, underweight children and adolescents—
NOTABLE IMPROVEMENT IN APPETITE AND OUTLOOK, MARKED INCREASE IN WEIGHT AND HEIGHT

One hundred and twenty children, age 1 to 11 years, underweight and in poor health, were given Winstrol for several months. Majority received daily dosage of from 2 to 4 mg. In nearly all, appetite was improved. Over 70 per cent showed significant gains in weight of from 5 to 17 pounds.

DOSAGE: Usual adult dose, one 2 mg. tablet t.i.d. just before or with meals; children from 6 to 12 years, up to 1 tablet t.i.d.; children under 6 years, ½ tablet b.i.d. Available in bottles of 100 tablets.

Complete bibliography and literature available on request. Before prescribing, consult literature for additional dosage information, possible side effects and contraindications.

*animal data

WITH NEW
WINSTROL

patients look better...feel stronger—because they are stronger

Winthrop LABORATORIES
New York 18, N. Y.



Welcome to another year of Lederle Symposia

Recognizing that the exchange of ideas is fundamental to medical progress, Lederle continues its Symposium program with the 11th year of scheduled meetings. Through these Symposia, sponsored by medical organizations with our cooperation, over 55,000 physicians have had the opportunity to hear and question authorities on important advances in clinical medicine and surgery. You have a standing invitation to attend any of these Symposia with your wife for whom a special program is planned.

SPOKANE, WASHINGTON
Saturday, June 2, 1962
The Davenport Hotel

BIRMINGHAM, ALABAMA
Saturday, June 2, 1962
Dinkler-Tutwiler Hotel

WASHINGTON, D. C.
Saturday, June 9, 1962
Marriott Motor Hotel

LAND O'LAKES, WISCONSIN
Sunday, June 17, 1962
King's Gateway Hotel and Inn

EAU CLAIRE, WISCONSIN
Wednesday, June 20, 1962
The Eau Claire Hotel

ATLANTA, GEORGIA
Wednesday, July 18, 1962
The Hotel Dinkler Plaza

SAN ANTONIO, TEXAS
Sunday, September 9, 1962
The Granada Hotel

CLARKSBURG, WEST VIRGINIA
Sunday, September 9, 1962
The Stonewall-Jackson Hotel

TYLER, TEXAS
Wednesday, September 12, 1962
Carlton Hotel

KANSAS CITY, KANSAS
Friday, September 14, 1962
Battenfeld Auditorium

WOODSTOCK, VERMONT
Wednesday, September 19, 1962
The Woodstock Inn

NIAGARA FALLS, ONTARIO
Saturday, September 29, 1962
Sheraton-Brock Hotel

RAPID CITY, SOUTH DAKOTA
Saturday, October 6, 1962
Holiday Inn

FINDLAY, OHIO
Thursday, October 11, 1962
The Findlay Country Club

HONOLULU, HAWAII
Sunday, October 21, 1962
The Princess Kaiulani Hotel

NEWARK, NEW JERSEY
Sunday, October 28, 1962
Robert Treat Hotel

SANTA BARBARA, CALIFORNIA
Saturday, November 3, 1962
Santa Barbara Biltmore Hotel

INDIANAPOLIS, INDIANA
Wednesday, November 7, 1962
Marott Hotel

Lederle LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.



ENTOZYME®

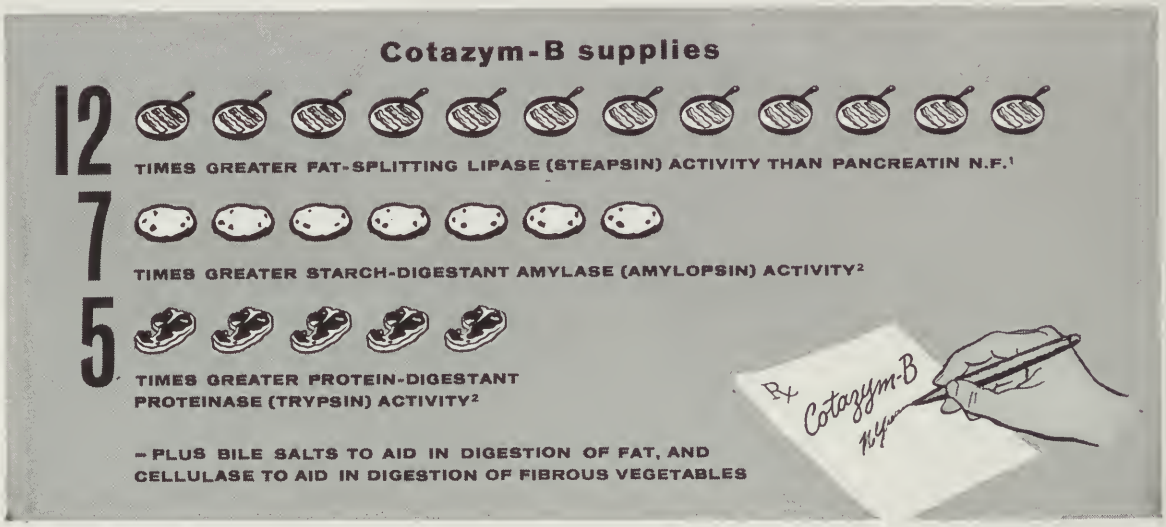
helps your gallbladder patient digest fat

The gallbladder patient who "can't resist" rich, succulent, greasy foods must often pay for his gastronomical indiscretions with the discomforts of fat-induced indigestion. However, these unpleasant aftereffects can frequently be relieved or prevented with Entozyme, a natural digestive supplement. Six tablets, the usual daily dose, will digest 60 gm. of fat or more. That's 50 to 90 per cent of an adult's normal daily intake. Bile salts stimulate the flow of bile and enhance the lipolytic activity both of Entozyme's Pancreatin and the patient's own lipase. Working together, Bile Salts and Pancreatin greatly aid the emulsification and transport of fat. Each enteric-coated Entozyme tablet contains Bile Salts (150 mg.) and Pancreatin, N.F. (300 mg.). Also 250 mg. of Pepsin, N.F.—enough to digest 8 gm. of protein.

A. H. Robins Company, Inc., Richmond 20, Virginia

Digestant needed?

Cotazym-B provides the most potent pancreatic enzyme action available!



COTAZYM-B is a new comprehensive digestant containing bile salts, cellulase and *lipancreatin* for supplementing deficient digestive secretions and helping to restore more normal digestive processes. *Lipancreatin*—"the most potent pancreatic extract available"[3]—is a concentrated pancreatic enzyme preparation developed by Organon.[4] It has been clinically proven to be an effective agent for treating digestive disorders of enzymatic origin.[1,4,5,6,7,8] COTAZYM-B is indicated for the symptomatic relief of dyspeptic or functional digestive disturbances characterized by bloating, belching, flatulence and upper abdominal discomfort.

Dosage: 1 or 2 tablets with water just before each meal.

Organon

REFERENCES: 1. Best, E. B., Hightower, N. C., Jr., Williams, B. H., and Carobasi, R. J.: South. M.J. 53:1091, 1960. 2. Analytical Control Laboratories, Organon Inc. 3. Best, E. B., et al.: Symposium at West Orange, N. J., May 11, 1960. 4. Thompson, K. W., and Price, R. T.: Scientific Exhibit Section, A.M.A., Atlantic City, N. J., June 8-12, 1959. 5. Weinstein, J. J.: Discussion in Keifer, E. D., Am. J. Gastro. 35:353, 1961. 6. Ruffin, J. M., McBee, J. W., and Davis, T. D.: Chicago Medicine, Vol. 64, No. 2, June, 1961. 7. Berkowitz, D., and Silk, R.: Scientific Exhibit Section, A.M.A., New York, June 25-30, 1961. 8. Berkowitz, D., and Glassman, S.: N. Y. St. J. Med. 62:58, 1962.

ORGANON INC., WEST ORANGE, NEW JERSEY

Cotazym®-B

Lipancreatin Bile Salts Cellulase



Relieves Anxiety and Anxious Depression

The outstanding effectiveness and safety with which Miltown relieves anxiety and anxious depression—the type of depression in which either tension or nervousness or insomnia is a prominent symptom — has been clinically authenticated time and again during the past six years. This, undoubtedly, is one reason why physicians still prescribe meprobamate more often than any other tranquilizer in the world.

Clinically proven in over 750 published studies

1. Acts dependably — without causing ataxia or altering sexual function
2. Does not produce Parkinson-like symptoms, liver damage or agranulocytosis
3. Does not muddle the mind or affect normal behavior

Miltown®
meprobamate (Wallace)

Usual dosage: One or two 400 mg. tablets t.i.d.
Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50. Also as MEPROTABS® — 400 mg. unmarked, coated tablets; and in *sustained-release* capsules as MEPROSPAN®-400 and MEPROSPAN®-200 (containing respectively 400 mg. and 200 mg. meprobamate).

WALLACE LABORATORIES / *Cranbury, N. J.*

CM-6709

for the physician in practice

A SPECIAL PROGRAM ON CARDIOPULMONARY DISEASES

sponsored by the AMA Section on Diseases of the Chest and the American College of Chest Physicians at the AMA 111th annual meeting

MEDICINE in the ATOMIC AGE



MARK AND REMEMBER MONDAY, JUNE 25!

That's the special day set aside during the AMA Annual Meeting in Chicago to review, discuss, and exchange information on everything that's new and up-to-date in the diagnosis and treatment of cardiopulmonary diseases.

The Joint Meeting of the AMA Section on Diseases of the Chest and the American College of Chest Physicians will feature eminent researchers, clinicians, and practitioners in a day-long session of symposia, open discussions, luncheons, and "fireside conferences."

HERE IS A BRIEF OUTLINE OF THE PROGRAM HIGHLIGHTS ...PLANNED JUST FOR YOU...

PROGRAM SYNOPSIS—Monday, June 25 ONLY

PRESIDING . . .

Dr. Arthur M. Master, New York, Chairman of the ACCP Council on Cardiovascular Research and Chairman of the AMA Section on Diseases of the Chest

SYMPOSIA . . .

SURGICAL TREATMENT OF ACQUIRED CARDIOVASCULAR DISEASE—Dr. Master, Moderator, following his address on FADS AND PUBLIC OPINION IN HEART DISEASE. McCormick Place, Room D, 9 a.m.

SPECIAL PROBLEMS—EMPHYSEMA, BIOPSY FOR SARCOIDOSIS, TOBACCO SMOKE, AND CARDIAC RESUSCITATION. McCormick Place, Room D, 10:55 a.m.

ROUND TABLE LUNCHEONS . . .

SIX SEPARATE LUNCHEONS—SIX SEPARATE TOPICS. McCormick Place, dining rooms to be announced, 12 noon.

SYMPOSIUM . . .

INHALATION THERAPY—PHYSIOLOGICAL PRINCIPLES, METHODOLOGIES, AND CLINICAL APPLICATIONS (presented in cooperation with AMA Section on Anesthesiology and Pathology and Physiology)—Dr. Robert D. Dripps, University of Pennsylvania Hospital, Philadelphia, Moderator. McCormick Place, Room D, 1:30 p.m.

FIRESIDE CONFERENCES . . .

30 tables, each with a moderator and panel of experts discussing many aspects of cardiopulmonary diseases. Morrison Hotel, 8:15 p.m.

See Convention Number, J.A.M.A., May 19, for complete scientific program, advance registration, hotel accommodations, and luncheon reservation forms.

AMA 111th annual meeting June 24-28 Chicago

INDEX TO ADVERTISERS

In accepting advertising for publication, the JOURNAL has exercised reasonable precaution to insure that only reputable, factual advertisements are included. Nevertheless, claims made by advertisers in behalf of goods, services, and medicinal preparations, apparatus or physical appliances are understood to be those of the advertiser. Neither sanction nor endorsement of such is warranted, stated, or implied by the association.

	Adv. page
American Medical Association	34
Ames Company	37
Appalachian Hall	28
Blue Cross	19
Breon Laboratories	14
Burroughs Wellcome	26
First Federal of Jackson	11
Hill Crest Sanitarium	28
Kay Surgical	24
Lederle Laboratories	10, 15, center, 30
P. Lorillard	17
Eli Lilly	front cover, 22
Mission Pharmacal Company	24
Organon, Inc.	after center, 32
Parke, Davis and Company	2, 3
William P. Poythress	27
A. H. Robins	9, 31
Roche Laboratories	back cover
Sardeau	6
W. B. Saunders	7
Schering Corporation	21
G. D. Searle	23
Smith, Kline & French	25
E. R. Squibb	16, 20
U. S. Brewers	before center
U. S. Vitamin	12, 13
Wallace Laboratories	8, 33
Winthrop Laboratories	4, 18, 29, 36

Articles for Publication

Manuscripts should be typewritten, double spaced on one side of the paper. Tables, charts, and tabulations should be submitted on separate sheets but their position in the text should be indicated. Authors are encouraged to limit bibliographies to 10 references, written in conformation to style utilized in scientific publications of the American Medical Association. Articles are accepted for publication on the condition that they have not been previously published and are contributed solely to this JOURNAL.

A thesis summary of 75 to 100 words must accompany each manuscript separately from the text. Figures and drawings are acceptable when prepared with black ink on white paper. Photographs for illustrations should be unmounted, untrimmed, glossy prints and all such material must be identified. No charges are made to authors for illustration engravings not exceeding four column inches per printed page.

Reprints may be obtained at cost from the association. The right is reserved to decline any manuscript for publication. Ordinarily, manuscripts submitted will be acknowledged whether published or not.

ABSTINENCE MAKES THE FAG GROW FONDER

More and more is being written about the evils of smoking. In fact, one patient read so much about it that he gave up reading.

DOCTOR'S ORDERS

The frail, elderly woman lived on the second floor of an apartment building. One day, she slipped on the stairs and fractured her leg. Reducing the fracture and applying the cast, her physician cautioned her not to walk up or down stairs. After weeks of slow healing, the doctor removed the cast.

"There," he beamed, "I believe you're as good as new."

"May I climb the stairs now, doctor?" she asked.

"Certainly," was the reply.

"That's good," sighed the patient. "I'm sick and tired of climbing up and down that drain pipe."



The Milibis® vaginal suppository is soft and pliant as a tampon. It offers proved therapeutic action* in an exceptional vehicle. The suppository is clean, odorless and non-staining. The course of treatment of vaginitis (trichomonal, bacterial and monilial) with Milibis is short —only 10 suppositories in most cases. Milibis® vaginal suppositories are supplied in boxes of 10 with applicator.

Winthrop LABORATORIES
New York 18, N. Y.

*97 per cent effective in a study of 564 cases;
94 per cent effective in a study of 510 cases.

Milibis (brand of glycobiarsol)

NEW!

DECHOLIN-BB®

COUNTERACTS 3 COMMON CAUSES in functional G.I. disturbances related to hepatobiliary dysfunction

TENSION	SPASM	STASIS
butabarbital sodium (Warning: may be habit-forming) 15 mg. (¼ gr.)	belladonna extract 10 mg. (⅙ gr.)	dehydrocholic acid, AMES 250 mg. (3¾ gr.)

Available: Bottles of 100 tablets.

for **spasm** and **stasis**

DECHOLIN® WITH BELLADONNA

belladonna extract, 10 mg. (⅙ gr.)
dehydrocholic acid, AMES, 250 mg. (3¾ gr.)

for **stasis** alone

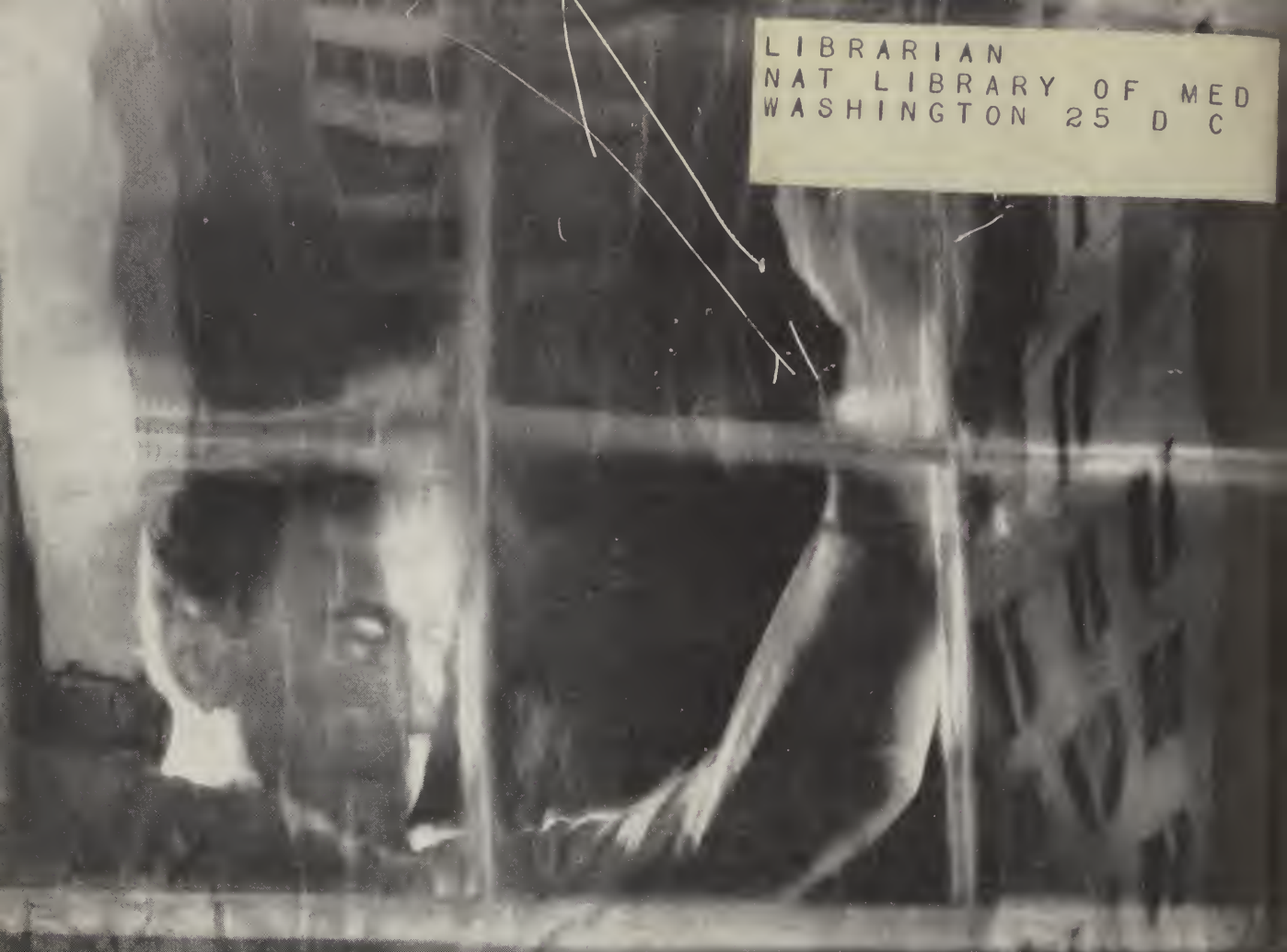
DECHOLIN®

dehydrocholic acid, AMES, 250 mg. (3¾ gr.)

Available: Bottles of 100 and 500 tablets.

Average Adult Dose—DECHOLIN-BB, DECHOLIN with Belladonna, and DECHOLIN—1 or, if necessary, 2 tablets three times daily.
Contraindications: Biliary tract obstruction, acute hepatitis, and (DECHOLIN with Belladonna and DECHOLIN-BB) glaucoma or prostatic hypertrophy. 19562

AMES
COMPANY, INC
Elkhart • Indiana
Toronto • Canada



LIBRARIAN
NAT LIBRARY OF MED
WASHINGTON 25 D C

window to the inside

Physicians report that Librium-treated patients view themselves more objectively and are better able to communicate feelings to their doctor. Librium often provides a "window" through which inner motivation comes into focus.

You can observe this benefit in your own practice. Why not select several patients who may be particularly burdened by anxiety, and whose state of tension prevents them from seeing, or coping with, their inner problems. You will find that Librium helps materially to foster useful insights and to control presenting symptoms—without the unwanted effects of tranquilizers.

Consult literature and dosage information, available on request, before prescribing.

LIBRIUM® Hydrochloride—
7-chloro-2-methylamino-5-phenyl-3H-1, 4-benzodiazepine 4-oxide hydrochloride

LIBRIUM
THE SUCCESSOR TO THE TRANQUILIZERS

ROCHE
LABORATORIES
Division of Hoffmann-La Roche Inc.
Nutley 10, N. J.

JOURNAL OF THE Mississippi STATE MEDICAL ASSOCIATION

JULY 1962

look at the literature

"Treatment results were good, and in many cases a dramatic response was noted. Many of the cases had previously failed to respond to various types of therapy, including, in some instances, other topical corticosteroid preparations."

—Gray, H. R., Wolf, R. L., and Doneff, R. H.: Evaluation of Flurandrenolone, a New Topical Corticosteroid, Arch. Dermat., *84*:18, 1961.

CORDRAN™
(flurandrenolone, Lilly)

Description: Each Gm. Cordran cream and ointment contains 0.5 mg. Cordran. Each Gm. Cordran™-N cream and ointment contains 0.5 mg. Cordran and 5 mg. neomycin sulfate. All forms are supplied in 7.5 and 15-Gm. tubes.

Cordran™-N (flurandrenolone with neomycin sulfate, Lilly)

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana

Lilly

NATIONAL LIBRARY
JUL 17 1962
OF MEDICINE

This Month . . . Management of Small Intestinal Obstruction, Maternal Mortality, Radiologic Seminar III, Constitution and By-Laws

M.S.M.A.

WI
MI 835
v.3, no.7-12
1962
c.1

The incidence of postoperative wound infections, particularly among debilitated patients, presents a serious hospital problem.[1] These infections are caused in many cases by strains of staphylococci resistant to most antibiotics in common use.[1,2,3] In such instances, CHLOROMYCETIN should be considered, since "...the very great majority of the so-called resistant staphylococci are susceptible to its action."[4]

Staphylococcal resistance to CHLOROMYCETIN remains surprisingly infrequent, despite widespread use of the drug.[2,4,5-7] In one hospital, for example, even though consumption of CHLOROMYCETIN increased markedly since 1955, there was little change in the susceptibility of staphylococci to the drug.[7]

Characteristically wide in its antibacterial spectrum, CHLOROMYCETIN has also proved valuable in surgical infections caused by other pathogens—both gram-positive **and** gram-negative.[7,8]

CHLOROMYCETIN (chloramphenicol, Parke-Davis) is available in various forms, including Kapseals® of 250 mg., in bottles of 16 and 100.

See package insert for details of administration and dosage.

Warning: Serious and even fatal blood dyscrasias (aplastic anemia, hypoplastic anemia, thrombocytopenia, granulocytopenia) are known to occur after the administration of chloramphenicol. Blood dyscrasias have occurred after both short-term and prolonged therapy with this drug. Bearing in mind the possibility that such reactions may occur, chloramphenicol should be used only for serious infections caused by organisms which are susceptible to its antibacterial effects. Chloramphenicol should not be used when other less potentially dangerous agents will be effective, or in the treatment of trivial infections such as colds, influenza, or viral infections of the throat, or as a prophylactic agent.

Precautions: It is essential that adequate blood studies be made during treatment with the drug. While blood studies may detect early peripheral blood changes, such as leukopenia or granulocytopenia, before they become irreversible, such studies cannot be relied upon to detect bone marrow depression prior to development of aplastic anemia.

References: (1) Minchew, B. H., & Cluff, L. E.: *J. Chron. Dis.* **13**:354, 1961. (2) Wallmark, G., & Finland, M.: *Am. J. M. Sc.* **242**:279, 1961. (3) Wallmark, G., & Finland, M.: *J.A.M.A.* **175**:886, 1961. (4) Welch, H., in Welch, H., & Finland, M.: Antibiotic Therapy for Staphylococcal Diseases, New York, Medical Encyclopedia, Inc., 1959, p. 14. (5) Hodgman, J. E.: *Pediat. Clin. North America* **8**:1027, 1961. (6) Bauer, A. W.; Perry, D. M., & Kirby, W. M. M.: *J.A.M.A.* **173**:475, 1960. (7) Petersdorf, R. G., *et al.*: *Arch. Int. Med.* **105**:398, 1960. (8) Goodier, T. E. W., & Parry, W. R.: *Lancet* **1**:356, 1959.

PARKE-DAVIS

90262 PARKE, DAVIS & COMPANY, Detroit 32, Michigan



when postoperative infection complicates convalescence...

CHLOROMYCETIN®

(chloramphenicol, Parke-Davis)

for broad antibacterial action





NTZ Nasal Spray gives prompt, dependable decongestion of the nasal membranes for fast symptomatic relief of hay fever. The first spray shrinks the turbinates, restores nasal ventilation and stops mouth breathing. The second spray, a few minutes later, improves sinus ventilation and drainage. Excessive rhinorrhea is reduced.

NTZ is more than a simple vasoconstrictor. It contains Neo-Synephrine® HCl 0.5%—the efficacy of which is unexcelled—to shrink nasal membranes and provide inner space; Thenfadil® HCl 0.1% for potent topical antiallergic action; and Zephiran® Cl 1:5000 (antibacterial wetting agent) to promote the spread of the decongestant components to less accessible nasal areas. NTZ is well tolerated and does not harm respiratory tissues.

NTZ Nasal Spray also provides decongestive relief for head colds, perennial rhinitis and sinusitis. Supplied in leakproof, pocket-size, squeeze bottles of 20 ml. and in bottles of 30 ml. with dropper.

helps hay fever patients forget the "season"

NTZ® Nasal Spray

Winthrop LABORATORIES New York 18, N. Y.

NTZ, Neo-Synephrine (brand of phenylephrine), Thenfadil (brand of thenyldiamine) and Zephiran chloride (brand of benzalkonium chloride, refined)

Volume III
Number 7
July 1962

JOURNAL of the Mississippi STATE MEDICAL ASSOCIATION

• EDITOR
WILLIAM M. DABNEY, M.D.

• ASSOCIATE EDITORS
DEWITT HAMRICK, M.D.
GEORGE H. MARTIN, M.D.

• MANAGING EDITOR
ROWLAND B. KENNEDY

• EDITORIAL ASSISTANT
BETTY M. SADLER

• PUBLICATIONS COMMITTEE
LAWRENCE W. LONG, M.D.
Chairman
B. B. O'MARA, M.D.
WILLIAM E. LOTTERHOS, M.D.
and the Editors

• THE ASSOCIATION
C. P. CRENSHAW, M.D.
President
JOHN G. ARCHER, M.D.
President-elect
C. G. SUTHERLAND, M.D.
Secretary-Treasurer
B. B. O'MARA, M.D.
Speaker
HOWARD A. NELSON, M.D.
Vice Speaker
ROWLAND B. KENNEDY
Executive Secretary
CHARLES L. MATHEWS
Assistant Executive Secretary

The JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION is owned and published by the Mississippi State Medical Association, founded 1856. Editorial, executive, and business offices, 735 Riverside Drive, Jackson, Mississippi; office of publication, 1201-5 Bluff Street, Fulton, Missouri. Subscription rate, $5 per annum; $1 per copy, as available. Advertising rates furnished on request. Second-class postage paid at the post office at Fulton, Missouri.

CONTENTS

ORIGINAL PAPERS

Errors and Complications in the Management of Small Intestinal Obstruction **295** WILLIAM O. BARNETT, M.D.

Maternal Mortality in Mississippi During 1959 **309** MICHAEL NEWTON, M.D.

SPECIAL FEATURES

Radiologic Seminar III **312** ALBERT J. MCILWAIN, M.D.

CPC XXX **312** Mississippi Baptist Hospital

Constitution and By-Laws **317** Mississippi State Medical Association

EDITORIALS

Struggle Against Narcotism: Phase II **329** A Clarification of Position

The Bionauts **331** Biology's Outer Reaches

A Friendless Cuss **331** Association's IBM

THIS MONTH

The Literature **325** Books and Journals

The President Speaking **328** 'A Good Beginning'

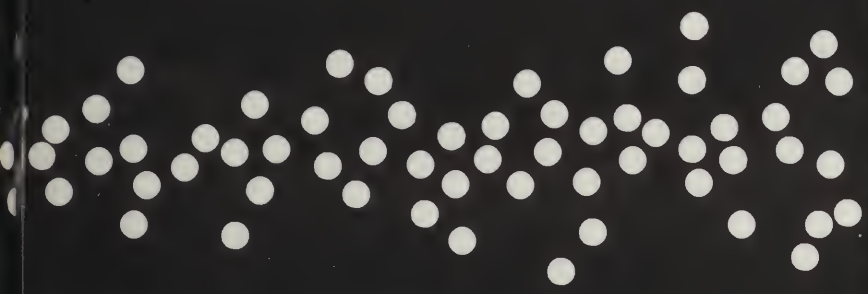
Medical Organization **333** Around the State

Copyright 1962, Mississippi State Medical Association

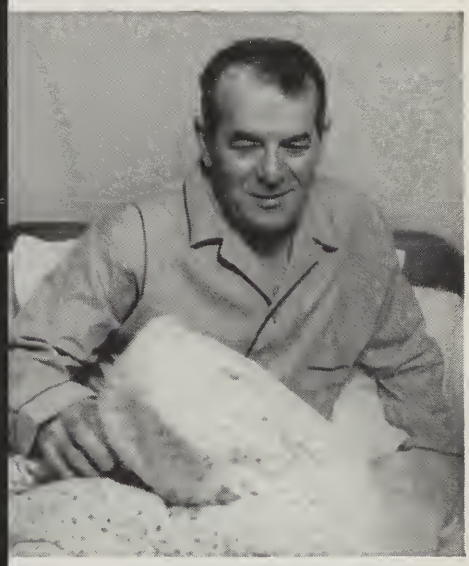


Thanks to 135 tiny "doses" throughout the

*Trademark, Reg. U.S. Pat.Off. Copyright 1962, The Upjohn Company



ight, the arthritic wakes up comfortable



Morning stiffness may be reduced or even eliminated as a result of therapy with the only steroid in long-acting form. And the slow, steady release of steroid makes it possible in some cases to reduce the frequency of administration and/or the total daily steroid dosage.

Medrol* Medules*

Each hard-filled capsule contains Medrol (methylprednisolone) 4 mg. Also available in 2 mg. soft elastic capsules.

Supplied in bottles of 30 and 100.

Upjohn

The Upjohn Company, Kalamazoo, Michigan

Reminder advertisement.
Please see package insert for detailed product information.



Put your low-back patient back on the payroll

Soma relieves stiffness –stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, fast!

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

> Kestler reports in controlled study: *Average time for restoring patients to full activity: with Soma, 11.5 days; without Soma, 41 days.* (*J.A.M.A. Vol. 172, No. 18, April 30, 1960.*)

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. **USUAL DOSAGE: 1 TABLET Q.I.D.**

The muscle relaxant with an independent pain-relieving acti

SOMA

(carisoprodol, Walla

Wallace Laboratories, Cranbury, New Jers

Control Constipation Without Interference

PRULET®



A MILD REFLEX ACTING LAXATIVE...

does not interfere with other conditions under treatment.

The active ingredient of Prulet,® Bis(p-acetoxyphenyl) -oxindole, is analogous to a substance found in prunes. Completely recoverable from the feces, it has no deleterious effect on the vital organs. It is completely free from side effects, such as coloring of the urine, hyperemia and flatulence. During lactation no portion of the active ingredient of Prulet® appears in the milk and it has no effect on the nursing infant.

PRULET®...

provides therapeutic effectiveness with milligram dosage.

EASY TO TAKE: Prulet® tablets are small, odorless, and tasteless.

SUPPLIED: Bottles of 60.

EACH TABLET CONTAINS:
Bis (p-acetoxyphenyl)-oxindole . . . 5 mg

DOSAGE: One or two tablets before retiring until regularity is achieved or as directed by a physician.

PRECAUTIONS: Presence of nausea, vomiting, abdominal pains, or other symptoms of appendicitis.

COMPLETE LITERATURE AND SAMPLES UPON REQUEST

Mission Pharmacal Co.
SAN ANTONIO 6, TEXAS

PR-61



Think Clean!

Detergent, mucolytic, antibacterial, penetrating... qualities that establish Trichotine as a leading vaginal cleanser—both as a therapeutic measure unto itself, and as a cleansing adjunct to therapy.[1-3] A detergent, Trichotine penetrates the rugal folds, removes mucus debris, vaginal discharge, and cervical plugs.[1-4] Surface tension is 33 dynes/cm. (vinegar is 72 dynes/cm.). Trichotine relieves itching and burning—is virtually non-irritating—leaves your patient feeling clean and refreshed. It establishes and maintains a normal, healthy vaginal mucosa in routine vaginal cleansing, as well as in therapy. Whenever you think of a vaginal irrigant, think of the detergent cleansing action of Trichotine.

detergent action
for vaginal irrigation Trichotine®
POWDER

ACTIVE INGREDIENTS: Sodium lauryl sulfate, sodium perborate, sodium borate, thymol, eucalyptol, menthol, methyl salicylate. AVAILABLE: In jars of 5, 12 and 20 oz. powder. REFERENCES: 1. Stepto, R. C., and Guinant, D.: J. Nat. M.A. 53:234, 1961. 2. Karnaky, K. J.: Medical Record and Annals 46:296, 1952. 3. Folsome, C. E.: Personal Communication. 4. MacDonald, E. M., and Tatum, A. L.: J. Immunology 59:301, 1948.

THE FESLER COMPANY, INC., KENILWORTH, NEW JERSEY

"How do you feel lately, Mrs. K?" *"Well, Doctor, some customers still 'get on my nerves'... but somehow this doesn't bother me as much... I feel better now and people seem easier to get along with..."* "Feel sleepy?" *"No, nothing like that*

In the treatment of mild to moderate tension and anxiety, the normalizing effect of TREPIDONE leaves the patient emotionally stable, mentally alert. Adult dose: One 400 mg. tablet, four times daily. Supplied: Half-scored tablets, 400 mg., bottle of 50.

this could be your "anxiety patient" o

TREPIDONE

MEPHENOXALONE LEDER

Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Departme

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York



NEWSLETTER

MISSISSIPPI STATE MEDICAL ASSOCIATION
JACKSON, MISSISSIPPI

July 1962

Dear Doctor:

Mississippi's answer to JFK's Madison Square Garden spectacle came from all quarters with MSMA, press, TV, and state government hitting back. President C. P. Crenshaw, in statewide release, called pitch for King-Anderson bill "a transparent paradox and a loyal payoff to Walter Reuther."

> Legislative chairman W. E. Lotterhos blasted administration on TV concurrently with AMA-Annis program. Governor Barnett took to airwaves same week to reaffirm opposition to compulsory federal care of aged "as a policy of the state administration."

Medical science needs a new series of terms to describe vitamins, says AMA, suggesting that present name be discarded. Rationale is that known vitamins are not so related in chemical structures nor in nutritional functions as to make up a natural group. With exception of B group, each should be considered separately, statement added.

New York followed Mississippi by enacting law requiring seat belts in autos but delayed enforcement until 1965 models are out. Mississippi statute buckles down passengers in 1963 models. A second N.Y. auto safety law requires all vehicles registered in state next year to have crankcase ventilating systems to reduce emission of pollutants.

Mississippi physicians are cautioned to be alert for sociopolitical activities by community-sponsored agencies with non-partisan service missions. A Laurel physician discovered local YWCA distributing literature supporting King-Anderson bill, discussed impropriety of action with "Y" officials, and had leaflets withdrawn.

Congressional sleeper of the month is proposal to permit federal employees to use chiropractic services in workmen's compensation care. AMA filed strong testimony in opposition, calling the cult a pseudoscience. Bill is carryover from day when late Senator Langer pumped legislative mill for the spinepunchers.

Sincerely,

Rowland B. Kennedy
Executive Secretary

DATELINE - MEDICAL AMERICA

Space Nutrition Problems Emerge As Cookies Crumble

New York - The first American to nibble on solid vittles in outer space reported baking failures, more of a problem in space travel nutrition than a laugh on the cooks. Scott Carpenter, second astronaut to orbit the earth, had trouble eating special compressed food made by Pillsbury and "space candy" from Nestle. The three-quarter inch cube cookies, made of high protein ingredients crumbled mysteriously and the candy melted, NASA officials said. Capsule temperatures up to 105° F. account for candy flop but the solid food failure isn't yet explained. Pillsbury and Nestle say products are labors of love, what with few space customers.

Reuther Threatens Congress At Senior Citizens Convention

Washington - Walter Reuther, AFL-CIO vice president, accused AMA of "high octane hypocrisy" on King-Anderson proposal and threatened members of Congress who oppose compulsory federal care of aged under Social Security with defeat at polls. Address was made at founding convention of National Council of Senior Citizens where, to absolutely nobody's surprise, Aime J. Forand was named chairman. Meet fell short in attendance with only 300 present.

Arizonans Gobble Sabin Vaccine For Immunization Record

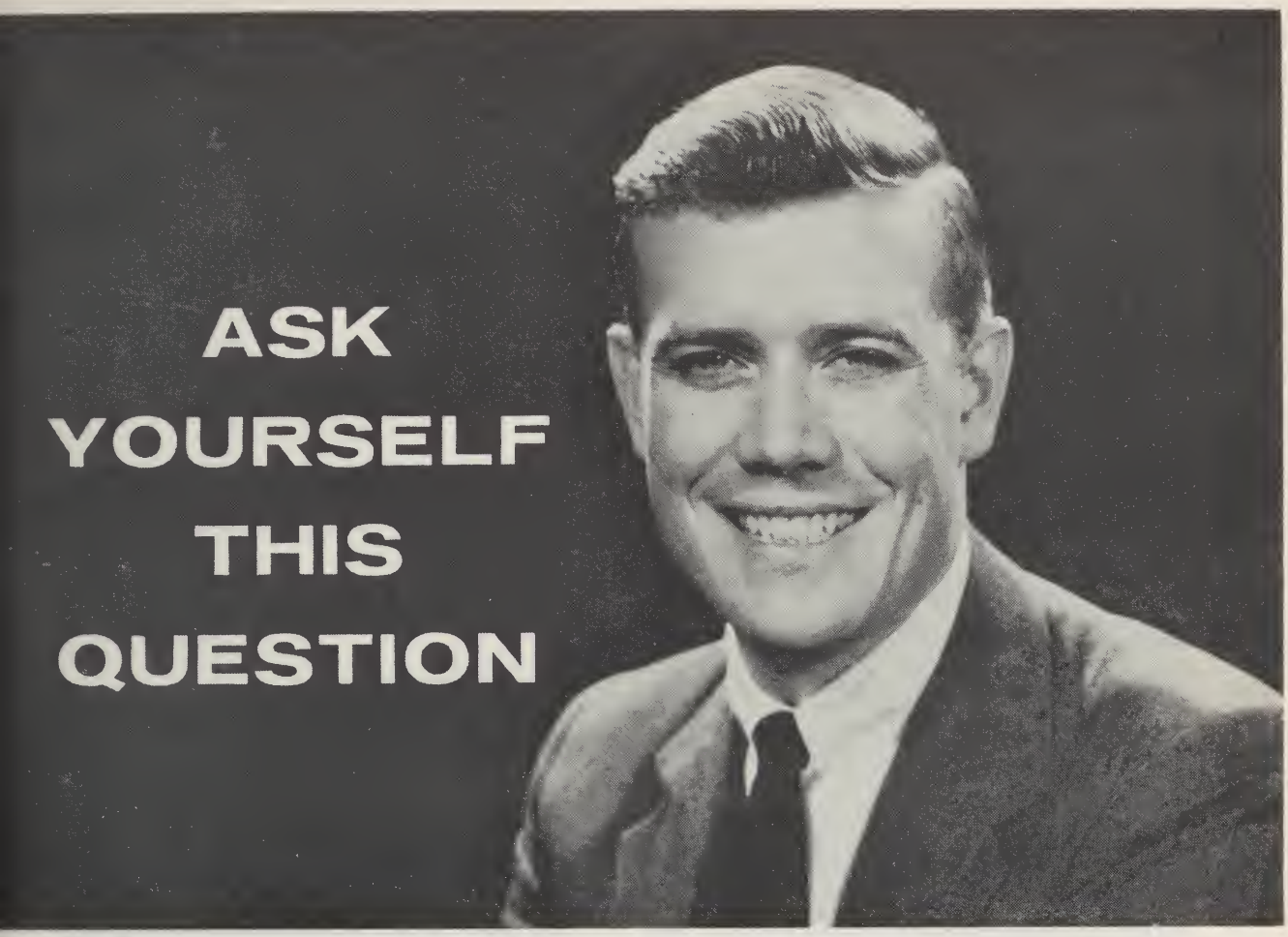
Phoenix - Citizens of the Grand Canyon state are number one in immunization against poliomyelitis, following intensive campaigns by medical profession in key Arizona population centers. Using Types I, II, and the recently approved III of the Sabin oral vaccine, doctors, pharmacists, and civic groups have achieved immunization of 657,000 of greater Phoenix' 700,000 citizens. Similar high was reached in Tucson area. Vaccine is given for cost price of $.25 per dose.

HIF Relocates At University Of Chicago

Chicago - The Health Information Foundation, drug industry-supported socioeconomic research organization, has moved from New York to the University of Chicago's campus to become an arm of the midwestern school. Headed by Dr. George Bugbee, HIF will retain its separate identity and continue to receive support from pharmaceutical industry. University resources, say HIF officials, will strengthen research mission.

Key Veto Of 'X-Ray Film Law' Is Supported By ACR

Albany, N.Y. - New York Governor Nelson Rockefeller vetoed an amendment to N. Y.'s personal property law which would have given title of x-ray films to patients. Move by governor had strong backing of American College of Radiology and N. Y. State Bar. Veto message said bill would fill no real need, would result in added expense to patient, and that films would represent medical hazard if used for diagnostic comparison purposes.



"How can I set a savings goal
-and guarantee I'll get there?"

First Federal of Jackson provides the answer in Guaranteed Dollars – a plan that will bring a smile to your face. The secret is systematic monthly saving, coupled with insurance on your life. Saving builds your cash reserve; life insurance assures your savings goal if death should occur. As savings increase, life insurance decreases, thus giving your plan a constant value at all times. There is nothing to compare. You save, your money earns and you have the protection of life insurance to assure your savings goal. Withdrawals may be made at any time, providing an extra reserve fund for emergencies if necessary.

Guaranteed Dollars Plans available in any amount for 10, 15, 20 years or longer. Call or write today for further details, giving your age, amount you want to save, and length of time desired.

FIRST FEDERAL
SAVINGS AND LOAN ASSOCIATION
CAPITOL AT STATE
JACKSON, MISSISSIPPI

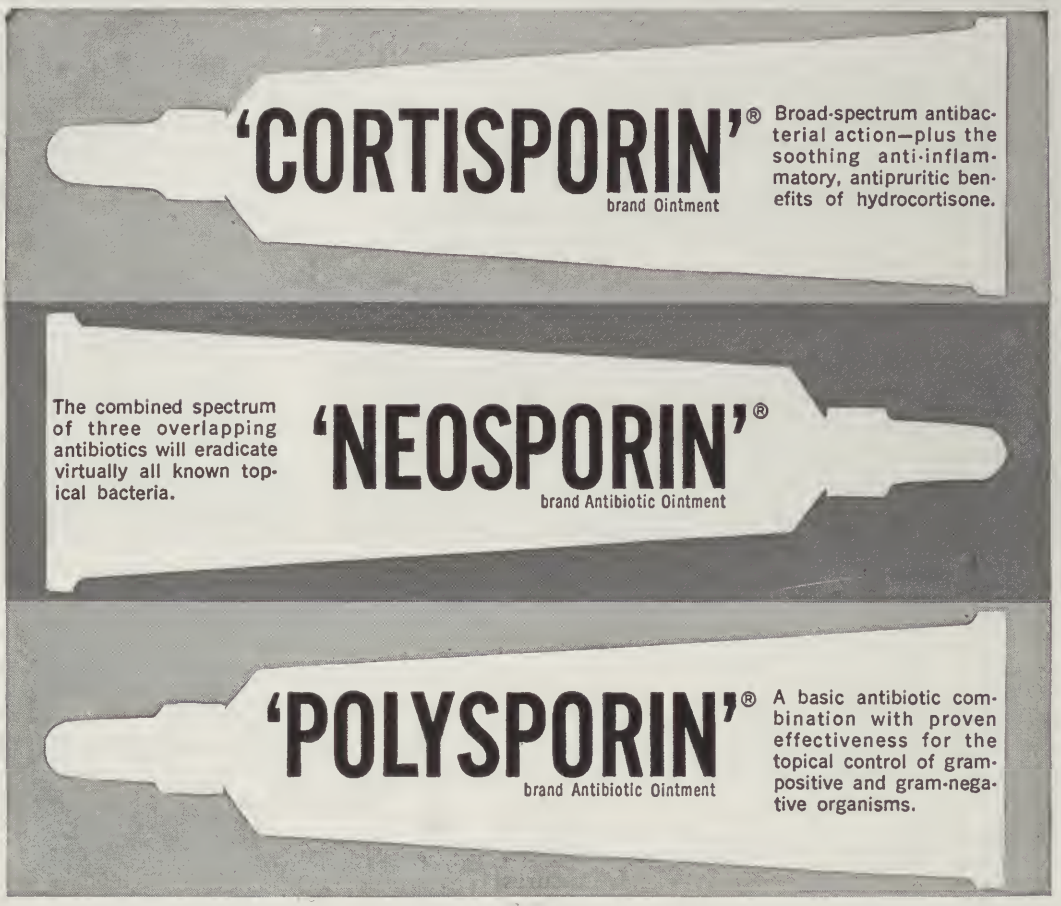
Guaranteed Dollars
SAVINGS PLAN

If you're 35 years old
Save $35.78 monthly for $10,000
20-year plan
(Progress of plan as each year passes)

Attained Age	As Savings Increase	Insurance Decreases	Total Value of Plan
36	373.48	12,996.00	13,369.48
37	762.05	12,312.00	13,074.05
38	1,166.32	11,628.00	12,794.32
39	1,586.92	10,944.00	12,530.92
40	2,024.52	10,260.00	12,284.52
41	2,479.79	9,576.00	12,055.79
42	2,953.46	8,892.00	11,845.46
43	3,446.26	8,208.00	11,654.26
44	3,958.97	7,524.00	11,482.97
45	4,492.39	6,840.00	11,332.39
46	5,047.37	6,156.00	11,203.37
47	5,624.76	5,472.00	11,096.76
48	6,225.49	4,788.00	11,013.49
49	6,850.48	4,104.00	10,954.48
50	7,500.72	3,420.00	10,920.72
51	8,177.23	2,736.00	10,913.23
52	8,881.08	2,052.00	10,933.08
53	9,613.35	1,368.00	10,981.35
54	10,375.22	684.00	11,059.22
55	11,167.85	.00	11,167.85

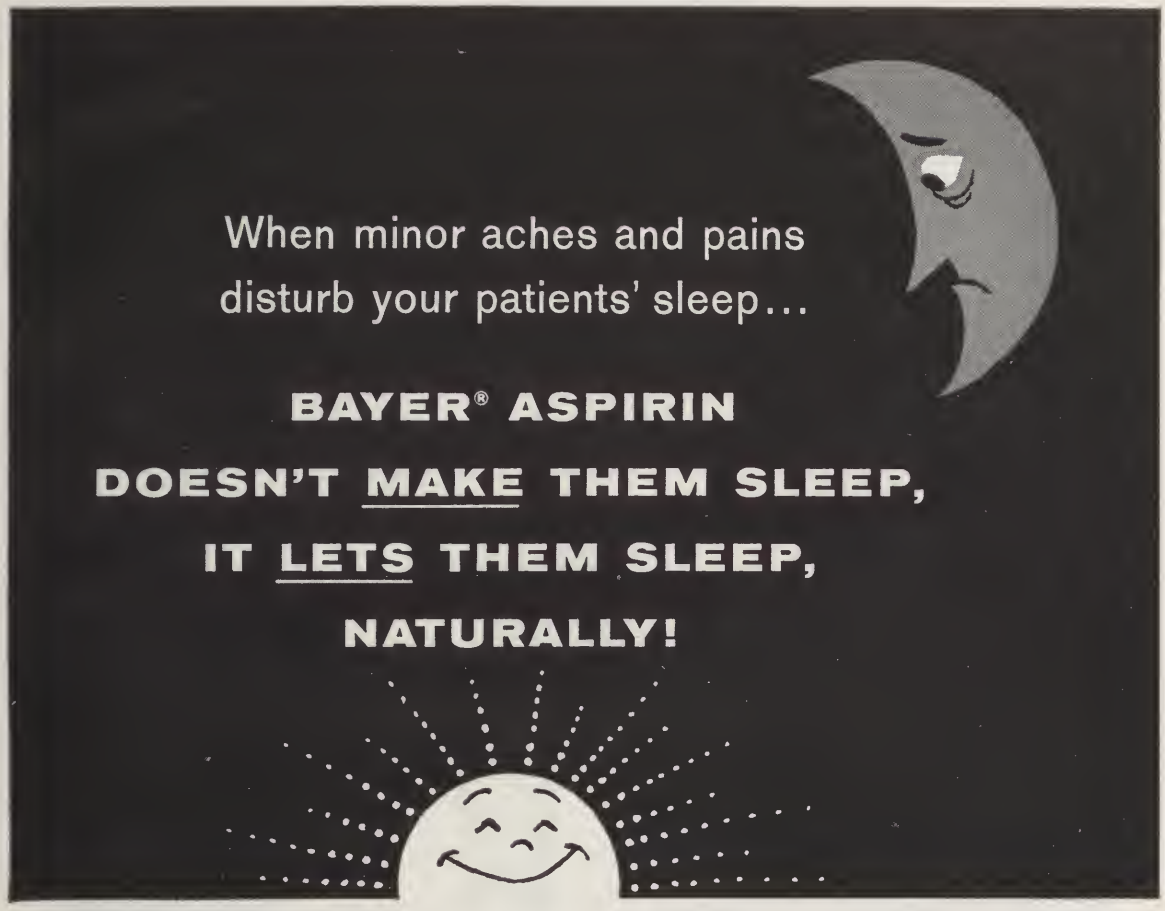
You Save $8,650.95 – You Earn $2,516.90

'B. W. & Co.' 'Sporin' Ointments rarely sensitize . . . give decisive bactericidal action for most every topical indication



Contents per Gm.	'Polysporin'®	'Neosporin'®	'Cortisporin'®
'Aerosporin'® brand Polymyxin B Sulfate	10,000 Units	5,000 Units	5,000 Units
Zinc Bacitracin	500 Units	400 Units	400 Units
Neomycin Sulfate	—	5 mg.	5 mg.
Hydrocortisone	—	—	10 mg.
Supplied:	Tubes of 1 oz., ½ oz. and ⅛ oz. (with ophthalmic tip)	Tubes of 1 oz., ½ oz. and ⅛ oz. (with ophthalmic tip)	Tubes of ½ oz. and ⅛ oz. (with ophthalmic tip)

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York



AND WITH BAYER ASPIRIN,
THERE'S NO
"SEDATIVE HANGOVER."

There are, of course, a great many instances of sleeplessness in which the patient should be directed to take a sedative to induce sleep.

But there are also many instances in which sleeplessness is caused by nothing more serious than minor aches and pains which can easily be relieved by one or two tablets of Bayer Aspirin. With physical discomforts gone, sleep comes naturally.

And when Bayer Aspirin is used as a sleeping aid, patients never suffer the "sedative hangover" which so often follows an induced sleep.

So remember, when minor aches and pains disturb your patients' sleep, Bayer Aspirin doesn't make them sleep; it lets them sleep, naturally, with no "sedative hangover."



In summer diarrheas



prompt 4 way check

- Curbs excessive peristalsis
- Adsorbs toxins and gases
- Soothes inflamed mucosa
- Provides intestinal antisepsis

POMALIN

TRADEMARK

Liquid

EFFECTIVE ANTIDIARRHEAL

FORMULA: *Each 15 ml. (tablespoon) contains:*

Sulfaguanidine U.S.P.	2 Gm.
Pectin N.F.	225 mg.
Kaolin	3 Gm.
Opium tincture U.S.P.	0.08 ml.

(equivalent to 2 ml. paregoric)

Warning: May be habit forming.

DOSAGE: **Adults**—Initially 1 or 2 tablespoons from four to six times daily, or 1 or 2 teaspoons after each loose bowel movement; reduce dosage as diarrhea subsides.

Children—½ teaspoon (=2.5 ml.) per 15 pounds of body weight every four hours day and night until stools are reduced to five daily, then every eight hours for three days.

SUPPLIED: *Bottles of 1 pint (raspberry flavor, pink color)*

Exempt Narcotic. Available on Prescription Only.

Winthrop LABORATORIES
New York 18, N. Y.





Kent's development of the "Micronite" filter revolutionized the cigarette industry. Shortly after introduction of Kent with its famous filter, the swing to filter cigarettes got started in earnest. And no wonder. Kent with the "Micronite" filter refines away harsh flavor, refines away hot taste, makes the taste of a cigarette mild and kind.

Yes, Kent is kind-tasting to your taste buds, kind-tasting to your throat. Your taste buds become clear and alive with Kent.

• • •

Your taste buds will tell you why you'll feel better about smoking with the taste of Kent.

A PRODUCT OF P. LORILLARD COMPANY · FIRST WITH THE FINEST CIGARETTES · THROUGH LORILLARD RESEARCH

© 1961 P. LORILLARD CO.



PERCODAN BRINGS *SPEED*...DURATION... AND DEPTH TO ORAL ANALGESIA

in the wide middle region of pain

PERCODAN®

(Salts of Dihydrohydroxycodeinone and Homatropine, plus APC) TABLETS

fills the gap between mild oral and potent parenteral analgesics

■ acts in 5-15 minutes ■ relief usually lasts 6 hours or longer ■ constipation rare ■ sleep uninterrupted by pain

Literature on request

Endo®

ENDO LABORATORIES
Richmond Hill 18, New York

AVERAGE ADULT DOSE: 1 tablet every 6 hours. May be habit-forming. Federal law allows oral prescription. *Also Available:* Percodan®-Demi: the complete Percodan formula, but with only half the amount of salts of dihydrohydroxycodeinone and homatropine.

Each scored, yellow Percodan* Tablet contains 4.50 mg. dihydrohydroxycodeinone HCl, 0.38 mg. dihydrohydroxycodeinone terephthalate (warning: may be habit-forming), 0.38 mg. homatropine terephthalate, 224 mg. acetylsalicylic acid, 160 mg. acetophenetidin, and 32 mg. caffeine.

*U.S. Pats. 2,628,185 and 2,907,768



VITALITY

In the realm of ideas, as in the world of nature, survival depends on fitness.

The perennial growth and development of the Blue Cross-Blue Shield concept of medical care prepayment proves its soundness, its vigor in serving the public's needs. From its beginning in 1947, Mississippi Blue Cross-Blue Shield has grown steadily. It has provided a service which Mississippians wanted and needed. It is now the largest organization in the State providing for the prepayment of health care costs for our citizens. Present membership is now over 365,000. Since 1947, Mississippi Blue Cross-Blue Shield has paid out over 75 million dollars in health care benefits for its members. Blue Cross-Blue Shield will remain dedicated to the job of **providing better health care benefits to more Mississippians at minimum cost.**

MISSISSIPPI
BLUE CROSS
BLUE SHIELD

MISSISSIPPI HOSPITAL & MEDICAL SERVICE / 530 EAST WOODROW WILSON AVE. / JACKSON, MISS. / TELEPHONE EM 6-1422

If you've been thinking of adding your own x-ray service...



get the

PRACTICAL PLAN

from your G-E man...

He gives you more than a "makeshift" layout!

Your G-E x-ray representative works with all kinds of installations. He can judge the type of equipment best suited to the demands of your practice and can help you plan its most efficient arrangement. His detailed layout will take full advantage of dozens of time-and-money-saving details — including suggestions on electric power and wiring requirements, x-ray protective needs, darkroom plumbing and accessories, plus many other recommendations to insure a completely efficient installation.

Your G-E man has earned a reputation among x-ray users as "*the* man who knows x-ray." What's more, he's backed by a full-time staff of specialists in the layout and design of x-ray installations. With this kind of help you can efficiently add x-ray to your practice. An obligation-free survey to start your practical plan can be had by phoning your G-E man at any office shown below.

MAXISERVICE® X-ray Rental opens the way to new x-ray equipment *without capital investment.* We will gladly show you how it provides equipment of your choice on a "pay-as-you-go" basis, for a modest monthly fee.

Progress Is Our Most Important Product

GENERAL ELECTRIC

DIRECT FACTORY BRANCHES

MEMPHIS
778 Madison Ave. • JAckson 5-0526

NEW ORLEANS
7715 Edinburgh St. • HUnter 8-7742

RESIDENT REPRESENTATIVES

BATON ROUGE
C. A. EBERSBAKER
2451 Honeysuckle Ave. • DIckens 2-2308

JACKSON
G. L. LAUDERDALE
Box 4344 Fondren Station • FLeetwood 3-5937



In each DONNATAL Tablet, Capsule or 5 cc. Elixir		In each DONNATAL Extentab
0.1037 mg.	hyoscyamine sulfate	0.3111 mg.
0.0194 mg.	atropine sulfate	0.0582 mg.
0.0065 mg.	hyoscine hydrobromide	0.0195 mg.
16.2 mg. (¼ gr.)	phenobarbital	(¾ gr.) 48.6 mg.

DONNATAL tablets • capsules • elixir
— for an easily adjusted t.i.d. or q.i.d. dosage regimen.

DONNATAL EXTENTABS®
— for day-long or night-long benefits on a single dose.

A. H. ROBINS CO., INC. • Richmond, Virginia


effective skeletal
muscle relaxation

ıs each patient may require

—for dramatic promptness: ROBAXIN INJECTABLE usually provides relaxation of painful spasm *in minutes*. Clinicians have reported that it is "effective in producing immediate relaxation,"[7] and brings about "dramatic relief of pain and spasm" within 15 to 20 minutes.[3]

In each 10-cc ampul Methocarbamol (Robins) 1.0 Gm.

—for prolonged use with safety: ROBAXIN TABLETS safely maintain relief of spasm *without drowsiness*. "The effect does not wax and wane,"[4] and continued administration shows "no deleterious effect on normal muscle tone."[6]

In each white, scored tablet Methocarbamol (Robins) 0.5 Gm.

ROBAXIN®

Robaxin is methocarbamol (Robins) U. S. Pat. No. 2770649

—for concurrent analgesia: ROBAXISAL TABLETS, combining ROBAXIN with aspirin, are useful in spasm-triggering states that are painful in themselves, or when pain is prominently associated with muscle spasm.

In each pink-and-white laminated tablet Methocarbamol (Robins) 400 mg.
Acetylsalicylic acid (5 gr.) 325 mg.

—for concurrent analgesia plus sedation: ROBAXISAL-PH TABLETS, combining ROBAXIN with the sedative-reinforced analgesic PHENAPHEN®, are particularly helpful in giving comprehensive relief to patients in whom muscle spasm is accompanied by spasm-potentiating pain and apprehension.

In each green-and-white laminated tablet			
Methocarbamol (Robins)	400 mg.	Acetylsalicylic acid (1¼ gr.)	81 mg.
Phenacetin	97 mg.	Hyoscyamine sulfate	0.016 mg.
		Phenobarbital (⅛ gr.)	8.1 mg.

ROBAXISAL®

References: 1. Carpenter, E. B.: South. M. J. 51:627, 1958. 2. Hudgins, A. P.: Clin. Med. 8:243, 1961. 3. Lamphier, T. A.: J. Abdomin. Surg. 3:55, 1961. 4. Levine, I. M.: Med. Clin. N. America 45:1017, 1961. 5. Meyers, G. B., and Urbach, J. R.: Penna. M. J. 64:876, 1961. 6. Perchuk, E., Weinreb, M., and Aksu, A.: Angiology 12:102, 1961. 7. Poppen, J. L., and Flanagan, M. E.: J.A.M.A. 171:298, 1959. 8. Schaubel, H. J.: Orthopedics 1:274, 1959. 9. Steigmann, F.: Am. J. Nursing 61:49, 1961.

A. H. ROBINS COMPANY, INC. • Richmond, Virginia



control the two-headed dragon of *pain & spasm*

"HIGH THERAPEUTIC EFFECT"

A growing library of clinical reports on the use of ROBAXIN in painful skeletal muscle spasm continues to reaffirm its effectiveness, dependability, rapidity of action, and lack of significant side effects.

Some recent comments:

"...high therapeutic effect..."[5]

"...superior to other relaxants..."[9]

"...remarkably effective..."[2]

"...a high potential for prompt relief..."[8]

"...unusual freedom from toxicity..."[1]

If you have patients on a cholesterol depressant diet, this will be welcome news:

General Mills is now making available, through grocery stores, a Safflower Oil which is totally acceptable in the diet, and which is priced reasonably.

SAFF·O·LIFE
Safflower Oil



As you know, Safflower Oil is higher in poly-unsaturates and lower in saturated fats than any other type of readily available vegetable oil.

When an increased poly-unsaturated fatty acid intake is desirable, you can recommend Saff-o-life Safflower Oil. You can do so with the assurance that the patient will find it completely appetizing—clear, light and fresh-smelling—and priced at a level which poses no problem.

Ratio of Linoleates* to Saturates
*(Poly-Unsaturates)

SAFFLOWER OIL • 9.0 to 1.0
CORN OIL • 5.3 to 1.0
SOYBEAN OIL • 3.5 to 1.0
COTTONSEED OIL • 2.0 to 1.0
PEANUT OIL • 1.6 to 1.0

Physicians who wish recipes using Saff-o-life Safflower Oil are invited to write directly to General Mills, Inc. Address your inquiries to Professional Services Director, General Mills, Inc. Dept. 120, 9200 Wayzata Blvd., Minneapolis 26, Minnesota.

*only topical antifungal with sweat-inhibiting action**

first orally effective antifungal antibiotic for ringworm

Schering

advicin®

brand of topical antifungal preparation

ORAL

fulvicin®

brand of griseofulvin

to lighten the step in athlete's foot—
itching, sweating, painful walking
are over—sooner—with
combined topical-oral therapy for
an "on-the-double" antifungal attack



For daytime use, ADVICIN Powder, 2 ounce can. **For nighttime use,** ADVICIN Cream, 50 gram tube.

For complete details, consult latest Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Bloomfield, New Jersey.

*ADVICIN contains PRANTAL® (brand of diphemanil methylsulfate) 2%, undecylenic acid 5%, and salicylic acid 3%.

S-921



"Treatment results were good, and in many cases a dramatic response was noted. Many of the cases had previously failed to respond to various types of therapy including, in some instances, other topical corticosteroid preparations."

—Gray, H. R., Wolf, R. L., and Doneff, R. H.: Evaluation of Flurandrenolone, a New Topical Corticosteroid, Arch. Dermat., *84:*18, 1961.

A look at the products—Cordran cream and ointment are new corticosteroid preparations especially formulated for the skin. Each Gm. contains 0.5 mg. Cordran.

Cordran™-N cream and ointment combine Cordran and the wide-spectrum antibiotic, neomycin. Each Gm. contains 0.5 mg. Cordran and 5 mg. neomycin sulfate (equivalent to 3.5 mg. base). Cordran-N is particularly useful in steroid-responsive dermatoses complicated by potential or actual skin infections.

All forms are supplied in 7.5 and 15-Gm. tubes.

Cordran™-N (flurandrenolone with neomycin sulfate, Lilly)
This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana. 240241

Lilly
QUALITY/RESEARCH/INTEGRITY

3375-D

JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION

July, 1962, Vol. III, No. 7

ORIGINAL PAPERS

Errors and Complications in the Management Of Small Intestinal Obstruction

WILLIAM O. BARNETT, M.D.

Jackson, Mississippi

Intestinal obstruction is one of the most frequent and most dangerous conditions in abdominal surgery. Major complications result from any extensive interference with the passage of content along the intestinal tract. When the obstruction is complete, the secondary effects are serious and may end fatally in a few days' time. Only by early utilization of effective corrective measures can a good outcome be assured.

THE REDUCTION IN THE MORTALITY rate of intestinal obstruction over the first half of this century is a source of gratification for all who are interested in the problem. Continuation of this trend will require the exercise of first class diagnostic acumen along with superior surgical judgment. The following is a consideration of some of the errors and complications which pose an ever-present threat for the patient with an obstruction.

PREOPERATIVE PERIOD

Failure To Suspect Obstruction. The most common cause of small intestinal obstruction today is adhesions which have resulted from previous surgery. The increasing frequency of gastrointestinal, biliary, pancreatic, and pelvic as well as other varieties of intra-abdominal surgery will probably result in a continuing increase in the incidence of this abdominal catastrophe. It is, therefore, apparent that those who manage the patient with acute abdominal pain must be ever mindful of small bowel obstruction. The pain of simple obstruction is usually intermittent and colicky in character although it may be continuous with acute exacerbations. Small bowel obstruction without vomiting is rare. Increased bowel sounds and abdominal distention are common. It must be remembered that the sudden onset of mesenteric vascular occlusion or closed loop obstruction with circulatory compromise can closely simulate conditions such as acute pancreatitis. In the latter situation nonoperative management is frequently employed while the other lesions require immediate operation if a reasonable chance for survival is to be entertained.

Negative X-ray Findings. The diagnosis of intestinal obstruction can be made in about 90 per cent of cases from roentgenographic examination alone. In a small percentage of cases characteristic x-ray findings are absent when intestinal obstruction exists.[11] When obstructed loops

From the Department of Surgery, University of Mississippi School of Medicine.

of bowel are filled with fluid and very little gas, the usual roentgenographic changes do not appear. This set of circumstances accounts for negative x-ray findings when obvious obstruction is observed clinically. A realization of this possibility will obviate undue delay in the diagnosis and appropriate management of the obstructed patient.

Undiagnosed Strangulation. The preoperative detection of compromised intestinal circulation remains as a challenge to those interested in the management of the patient with obstruction. The problem lies chiefly in detecting this change early in its course. Late strangulation complicated by gangrene is not as easily confused with simple obstruction. Unfortunately these patients are acutely ill and are attended by a rather high mortality rate. In general, the shorter the period of peritoneal exposure to strangulated bowel, the better are the chances for survival. Immediate surgery is in order when the patient complains of continuous severe abdominal pain. The presence of a palpable abdominal mass usually indicates the presence of bowel obstruction other than the simple variety. It is probably wise to institute early surgery when rebound abdominal tenderness has been demonstrated. This finding may indicate strangulation or it may herald the presence of rupture of the appendix, a colon diverticulum, or a pelvic abscess with consequent obstruction from inflammatory changes. In any event all these conditions are best handled by early operation.

Strangulation should be suspected when shock exists and especially in those cases with persistent hypotension following administration of fluid and electrolytes. The demonstration of fever above 100° C., pulse rate over 100, leukocyte count over 10,000, silent abdomen, rigid abdomen, or abdominal tenderness is consistent with the presence of simple or strangulated obstruction. Under these circumstances, additional diagnostic information may result from abdominal paracentesis. Aspiration of bloody or dark peritoneal fluid in the presence of obstruction almost certainly signifies the existence of strangulation. Extreme caution must be utilized in carrying out this procedure upon those patients with advanced distention.

Bowel Perforation from Pressure Necrosis. Adhesions which are responsible for intestinal obstruction may assume many different forms which vary from thin filmy structures as seen in peritonitis to tough fibrous bands. When the obstructing mechanism consists of the latter type of adhesions, considerable pressure is exerted against a small area of the bowel wall. This interferes with the circulation of the intestinal wall with subsequent necrosis. If operation is performed at this stage, resection of the altered bowel will be necessary. More advanced cases will result in frank perforation of the intestine. Leakage of stagnant content from the obstructed bowel into the peritoneal cavity constitutes a grave and often fatal complication. In spite of immediate surgery, irrigation of the peritoneal cavity, and liberal antibiotic administration, many of these patients will fail to recover. Chiefly responsible for this avoidable complication is undue prolongation of the nonoperative treatment of intestinal obstruction. This has come about largely since the introduction of intubation as a definitive method for the management of this condition. Successful management lies in prevention rather than treatment of this complication. Institution of operation before the elapse of long periods of time is the logical prophylactic measure.[2]

Compromise of Bowel Viability from Distention. The accumulation of solid material, liquids, and especially gas proximal to the site of intestinal obstruction results in gradual and progressive increases in intraluminal bowel pressure. The small arteries and veins which supply the wall of the gut are exposed to this rising pressure and increasing degrees of circulatory impairment result therefrom. Eventually, because of lower pressure, the veins become occluded while the arteries continue to admit blood. This circulatory congestion proceeds to anoxia and necrosis of the intestinal wall. The closer proximity of the duodenal vessels to the mucosal surface renders this segment of bowel even more susceptible to these changes. It is reasonable to conclude, therefore, that intestinal distention must not be allowed to persist or progress indefinitely where obstruction exists. Relief may obtain following the introduction of a long tube into the gastrointestinal tract, especially if one is fortunate enough to succeed in passing the tip of the tube into small bowel. This maneuver failing, operative decompression should be utilized. Our experience with the Witzel type of enterostomy for decompression has been unsatisfactory.

Failure To Correct Water and Salt Deficits. Fluid loss which may attain serious proportions is a prominent clinical feature of intestinal obstruction. The normal process of water ingestion is not available to compensate for the continuous obligatory losses via the skin, kidneys, and lungs. This is further complicated by profuse vomiting in many cases which represents

a major route of loss of gastrointestinal secretions. Sequestration of large quantities of fluid in the distended intestine accounts for another avenue of fluid deprivation. There are no specific methods by which the precise fluid requirements for the individual case may be ascertained. Inadequate fluid replacement usually results in a scanty urinary output with elevation of the blood nitrogen content. A contracted blood volume along with increased blood viscosity may render the patient more susceptible to shock. It has been estimated that when early x-ray signs indicative of obstruction appear, the fluid deficit will be approximately 1,500 cc. Where the obstruction is well established and there is a history of vomiting, this value will approach 3,000 cc. In advanced obstruction where there is a rapid pulse rate and/or hypotension, 4,000 to 6,000 cc. of fluid may be necessary in order to satisfy the losses.[3] During the 24-hour period of preparation for surgery the volume of fluid which appears to be indicated according to the status of the patient as mentioned above is given along with an additional 3,000 cc. of 5 per cent glucose in saline to cover the insensible and urinary losses which normally occur during this time interval. The preoperative fluid requirement, then, may vary from 4,500 to 9,000 cc. An amount of fluid equal to the volume withdrawn by suction should be added to the above.

Pure water loss does not occur in intestinal obstruction. Large quantities of salts are contained in the fluid which escapes from the body subsequent to obstruction of the bowel. Salt depletion results in lassitude and orthostatic fainting as well as hypotension and peripheral circulatory failure. Potassium deficits predispose to cardiac arrest, impairment of protein and carbohydrate metabolism along with refractory alkalosis. Meticulous correction of these abnormalities is a vital necessity if the patient is to have optimal chances for recovery.

In the majority of instances of small bowel obstruction loss of acid and alkaline ions are approximately equal so that severe deviations from the normal blood pH are not common. A balanced electrolyte preparation, such as Hartman's solution, is satisfactory in the absence of significant acid-base derangement. Where metabolic acidosis exists, electrolyte repair may be initiated with 1/6 molar sodium lactate solution. Satisfactory results usually are obtained following administration of normal saline solution where metabolic alkalosis exists. Potassium chloride should be given only after adequate urinary output has been established. The administration of this salt may be safely accomplished by giving the necessary amounts in the proportion of 3 to 4 gm. to each 1,000 cc. of fluid.

Overcorrection of Fluid and Salt Abnormalities. Overenthusiastic attempts to correct fluid and electrolyte deficits may result in complications of serious and potentially lethal proportions.

1. Water Intoxication. This complication is usually the product of the infusion of large amounts of glucose in distilled water combined with impaired renal function. These patients usually exhibit a stage of confusion which may be followed by convulsive seizures. Increased intracranial pressure is thought to be responsible for these changes. The intravenous administration of saline solution promotes restoration of normal tonicity to the extracellular fluids with relief of symptoms.

2. Excess Salt Infusion. The intravenous infusion of large amounts of saline solution in the early postoperative period is likely to result in the retention of abnormally large quantities of these substances. Impaired renal function as well as insufficient cardiac reserve, predispose to this complication. Chest rales, edema, weight gain, and coma may signify the existence of an excessive water and salt load. Restraint should be exercised in the administration of large quantities of salt solution in the early postoperative period and especially in elderly individuals.

Excessive elevation of the serum concentration of potassium is dangerous in that it predisposes to cardiac arrest. This may result from the rapid intravenous infusion of potassium chloride before adequate urinary output has been established or the administration of highly concentrated preparations of this salt. Characteristic electrocardiographic changes may be obtained where this complication exists. Saline solution should be given rapidly to dilute the vascular fluids and thereby decrease the concentration of potassium. Where this complication is a product of impaired kidney function, the treatment is essentially that of renal shutdown.[7]

Overcorrection of Acid-Base Deficits. The blood pH is maintained close to the normal value of 7.45 largely as a result of the relative concentration of H_2CO_3 and Na HCO_3. The absolute quantities of these substances which are present in the blood is not nearly as important as their relative concentrations. For instance, following pylorus obstruction the system loses large amounts of acid as a result of vomiting. This results in a rise in blood pH which is characteristic of metabolic alkalosis. In order to depress the pH to a more nearly normal figure the kidneys excrete a portion of the alkaline Na HCO_3. This

is termed a compensated alkalosis. Both acid and alkaline reserves of the blood buffer system are partially depleted and the rapid intravenous infusion of large quantities of acid solution could very easily depress the blood pH and throw the patient into acidosis. The key to the management of these problems is the availability of facilities for the measurement of blood pH. In the absence of this service one must be ever mindful of overcorrection of apparent acid-base derangement.

Tubes. The utilization of gastrointestinal suction through nasal tubes has enjoyed widespread usage in the management of small bowel obstruction. In spite of mounting experience and attempts at outlining precautionary measures the prevalence of complications, some of which assume serious preparations, is becoming more and more apparent.[5]

1. Inability to introduce long tube into small bowel. The introduction of long intestinal tubes into the upper reaches of the jejunum is a valuable adjunct in the management of small bowel obstruction. Progression of the balloon from the stomach to the duodenum is encouraged by moderate elevation of the head of the bed and turning the patient upon his right side. The radiologist with the aid of the fluoroscope often is able to render valuable assistance by placing the tip of the tube in the region of the pylorus. Instillation of water or mercury into the balloon facilitates passage from the stomach. In many instances these maneuvers will culminate in successful small bowel intubation. However, in the presence of advanced distention and especially where paralytic ileus obtains, success is often wanting. Those cases which present the greatest need for long tube decompression are often the ones which must be classified as failures. Prolonged attempts at nonoperative decompression should not be substituted for early surgery in most instances.

2. Loss of fluids and electrolytes. The objective of nasogastrointestinal intubation is the reduction of distention by removal of the accumulated gas and fluid. Great benefit can result from prolonged aspiration of gas from the obstructed bowel since this material serves no useful function. On the other hand, removal of large quantities of liquids over a prolonged period may result in depletion of water and salt stores with precipitation of dehydration and electrolyte deficits. This material should be measured so that accurate replacement of these elements may be included in the daily fluid and electrolyte quotas.

3. Laryngeal injury. This complication results from pressure necrosis of the upper esophagus opposite its attachment to the cricoid cartilage. A spreading perichondritis of the larynx with edema may progress to complete respiratory obstruction necessitating tracheotomy. Less extensive involvement results in hoarseness or inability to talk above a whisper. While usually occurring after long periods of intubation, these changes have been observed after intervals as short as six days.[5]

4. Esophageal stricture. Pressure erosion of the lower esophageal wall is a common complication of prolonged intubation. It probably occurs more frequently than is realized because of spontaneous healing where reversible changes have occurred. Esophageal stenosis or complete obstruction may obtain following healing and contraction of more advanced lesions. Management is then resolved to prolong dilitations or surgical reconstruction.

5. Bowel perforation. Local bowel wall changes may occur as a result of continued tamponade from a mercury filled bag. Eade *et al.*[4] reported 13 cases of stomach or intestinal perforation as a result of erosion of all layers of the visceral wall. Indirectly, tubes may be responsible for intestinal perforation during unduly prolonged nonoperative treatment of adhesive intestinal obstruction. A false sense of security is gained because of effective decompression of the intestine. The increasing degree of pressure exerted against the bowel wall is not apparent until frank perforation has occurred with flooding of the peritoneal cavity by toxic intraluminal material. Earlier utilization of operative treatment should decrease the incidence of this often fatal complication.

6. Injury to the nasopharyngeal passage. Among these complications are erosion of the alae nasi or the nasal septum as well as sinusitis. Especially common is the development of otitis media in infants and children. This results from irritation of the region of the orifice of the eustachian tube.

7. Rupture of bag. This mishap may occur as a result of the use of defective material during manufacture, inadequate fixation to the tube or irrigation of the bag rather than the suction compartment of the tube. When the Miller-Abbott tube is used, the last complication occurs when there is a lack of familiarity with the construction of the tube. It is important to test the tube before it is inserted in order to make sure that the labels on the metal suction tip have not been reversed. Spillage of mercury into the lumen of the bowel following perforation of the bag is not usually followed by untoward complications.

8. Obstruction of the tube. The passage of gastric or small bowel contents through nasogastric tubes is usually accomplished without significant difficulty. Occlusion of the tube either by small food particles, mucous or adjacent bowel mucosa is largely prevented by frequent irrigation with 30 cc. of saline solution. Saline is preferred to distilled water as an irrigation solution because it more effectively promotes conservation of body salts. Injection of 25 cc. of 10 per cent proteolytic ferment (Caroid) has been advocated to facilitate the aspiration of intestinal contents composed of larger than usual particles.[10]

At various levels of gastrointestinal tract, usually in the stomach, tubes may become coiled and subsequently tied in a knot. Further benefit from such a tube is eliminated and a new one must be substituted in its place.

9. Inability to remove tube. This problem is encountered only in those instances where long tubes are used. If the balloon has been filled with air or water, extubation is accomplished with ease in the great majority of cases after it has been emptied. However, when the bag is filled with mercury there is usually considerable resistance to withdrawal. Reverse intussusception of the small bowel can occur. Vigorous traction upon nasogastrointestinal tubes must be avoided. It is much safer to institute further attempts at removal after the elapse of a period of time where resistance is being encountered. When multiple attempts at removal have been unsuccessful, it may be advisable to attempt to allow the tube to pass through the intestinal tract. The posterior pharynx is exposed and the tube is divided as low as possible. If intestinal obstruction has been relieved, the tube will be passed per rectum in many instances. Operative intervention for removal of the tube may be necessary when all other techniques have failed.

Once the tube has been withdrawn to the point where the mercury filled bag is in the pharynx it is desirable to grasp the bag with a hemostat and withdraw it through the mouth. The bag may be removed from the tube at this stage or the tube may be cut above the attachment of the bag. Where the bag contains a large amount of mercury, considerable discomfort will result from forcefully pulling it through the nasal passage.

10. Gaseous distention of the balloon. This complication may occur only in those instances where a closed bag is used such as the one described by Cantor. Once it has passed into the intestine, gases tend to migrate into the lumen of the balloon with progressive increase in its size. The enlarged balloon may distend the small bowel and precipitate intestinal obstruction. Moore[9] and associates found it necessary to resort to laparotomy in order to remove such a distended bag. Cantor recommends puncture of the midportion of the rubber bag with a 21 or 22 gauge needle before passage is attempted. An opening of this size allows accumulated gas to escape without spillage of mercury.

11. Acute gastric dilitation. After a long tube has been passed into the lower reaches of the intestinal tract, there are instances where acute gastric dilitation may supervene. This is especially true if an element of inhibition ileus has occurred so as to decrease the propulsive power of the gastrointestinal tract. This course of events necessitates immediate insertion of a Levin tube into the stomach following which immediate relief of upper abdominal discomfort is usually experienced by the patient.

OPERATIVE PERIOD

Contamination of Peritoneal Cavity. The intraluminal content of obstructed bowel is extremely toxic when allowed to come in contact with the peritoneum. Flooding of the peritoneal cavity by this material may well mean the difference between recovery and failure to survive in the acutely ill, obstructed patient. This operative catastrophe may come about in several ways.

1. Inadvertent laceration of bowel wall. A sizeable percentage of patients with intestinal obstruction have sustained previous abdominal surgery which has resulted in the firm adherence of small bowel to the anterior abdominal wall, especially in the vicinity of old scars. The chances for intestinal injury are significantly decreased if the abdominal cavity is entered at a site considerably removed from the area of healed incisions.

Laceration of the bowel wall may also occur during attempts to release the obstructing agent as in the division of an adhesion. Avoidance of this technical mishap depends largely upon securing adequate exposure before intra-abdominal structures are divided. Utilization of an abdominal incision of generous proportion is of major importance. A right or left paramedian incision with lateral retraction of the rectus muscle provides good exposure and may be enlarged without irreparable abdominal wall damage if this becomes necessary.

When intestinal distention is only moderate, the site of obstruction can usually be visualized without great difficulty. Where advanced distention exists, it is often advisable to withdraw the greatly enlarged coils of bowel upon the abdominal wall. This maneuver facilitates rapid detection of the site

and nature of the obstruction agent. Admittedly, the bowel is subjected to more trauma under these circumstances but insurance against complications which result from poor exposure as well as shortening of operative time probably outweighs this disadvantage. Gentle manipulation of the bowel along with the application of warm saline packs minimizes the chances of bowel injury.

2. Spillage of bowel content during anastomosis. Open small bowel anastomosis is being performed with increasing frequency following intestinal resection. Greater accuracy in the placement of sutures usually results in a more satisfactory stoma following the use of this method as opposed to the closed technique. The chances for peritoneal contamination are minimized by the placement of moist saline packs around the incision as well as the divided ends of the bowel. Leakage from the open bowel may be prevented by application of rubber-shod clamps to both the proximal and distal loops 6 to 12 inches from the site of division. Performance of the anastomosis upon the abdominal wall further decreases the chances for peritoneal contamination.

3. Improper management of hernia. Contamination of the peritoneal cavity during the operative management of strangulated hernia should never occur if proper technical precautions are observed. The neck of the hernia sac is usually tightly constricted about the segment of involved bowel so that leakage of the toxic material into the peritoneal cavity is prevented. The hernia sac should be opened for removal of the material contained therein before the neck of the sac is divided.

Management of the Contaminated Peritoneal Cavity. The singular introduction of minimal amounts of foreign material into the peritoneal cavity requires little alteration in patient management from that utilized for the uncontaminated case. Generalized peritoneal exposure to normal and abnormal bowel content in large quantities necessitates the use of all therapeutic modalities

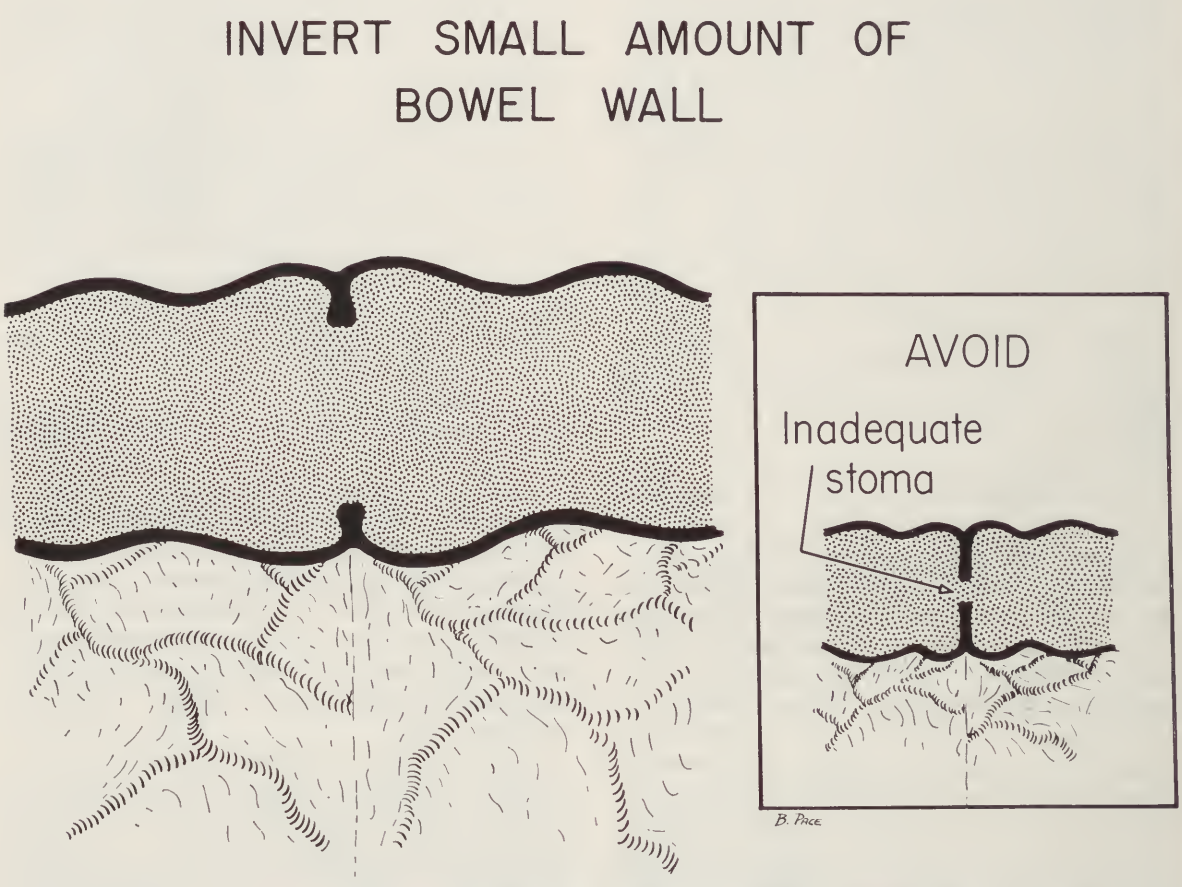


Figure 1. Excessive inversion of bowel wall should be avoided.

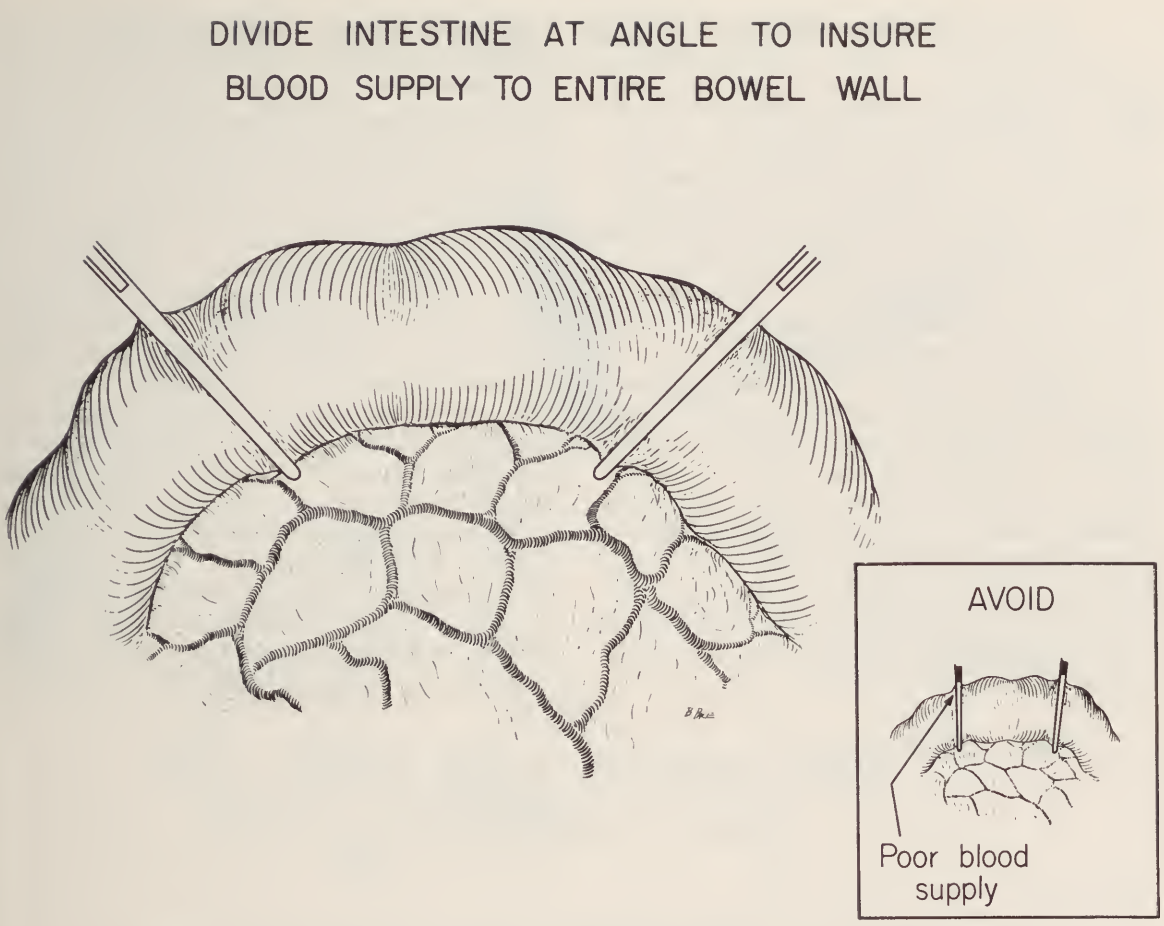


Figure 2. Compromise of circulation to antimesenteric bowel wall must be avoided.

which hold promise of benefit. Small bowel content incident to intestinal obstruction is usual in a fluid state and may spread extensively over the peritoneal cavity.

Following the occurrence of significant peritoneal contamination, the operating table should be shifted so as to immediately place the pelvis in a dependent position and thus decrease the likelihood of the contaminating material migrating to the upper abdomen.

Experimental evidence indicates that the longer peritoneal exposure is allowed to exist, the greater is the possibility for irreversible damage. Immediate removal of this material can certainly be logically applied to the management of patients. Aspiration with the abdominal suction apparatus should be used as long as success is apparent. Aspiration will certainly remove gross contaminating material but after this maneuver a layer of the material usually remains over the peritoneal surface. Irrigation of the peritoneal cavity with warm saline solution is beneficial in removal of residual portions of the contaminating material. For the most part, the toxic properties of bowel content are related to the bacterial content of the material. Experimental evidence indicates that intraperitoneal administration of antibiotics is highly effective in the management of the contaminated peritoneum. Other routes of antibiotic injection proved considerably less beneficial.[1]

Failure to Resect Nonviable Bowel. Thorough inspection of altered bowel must be carried out following the release of intestinal obstruction in order that segments showing irreversible changes may be revealed. Particular care must be exerted during the operative management of incarcerated inguinal hernia since early division of the external oblique fascia which forms the external inguinal ring will allow the bowel to escape into the peritoneal cavity before adequate examination has been carried out. When this mishap occurs, it is occasionally possible to grasp the questionable segment and withdraw it again through the inguinal opening for observa-

tion. This maneuver failing, the operator must make an abdominal incision so that the exact status of the bowel can be established.

The ability of ischemic, traumatized bowel to resume its normal appearance and characteristics is indeed remarkable. Following release of the obstruction agent, warm moist packs should be applied to the bowel cavity for at least ten minutes after which a decision concerning its viability should be made. Survival of the segment in question is virtually assumed if the intestine resumes a pink color, exhibits pulsating vessels in the mesentery, presents a bright glistering surface, shows no evidence of damage to the serosal surface, and demonstrates a capacity to transmit peristaltic waves. On the other hand, the capacity for survival can be seriously challenged when a dark blue or black color persists, the serosal surface is dull and without luster, mesenteric vessels no longer demonstrate pulsation and there is no evidence of peristalsis.

Unfortunately the criteria upon which bowel viability is based are not always postive and clear-cut. Questionable bowel may be further improved by the injection of Xylocaine into the root of the mesentery. Theoretically this produces a sympathetic nerve block with subsequent vasodilation and increased blood flow. The beneficial effects of this maneuver have not been clearly established. Further improvement in the status of bowel circulation may be expected following decompression if the segment of bowel is found to be distended. Reduction in intraluminal pressure eliminates considerable resistance to blood flow with resulting beneficial results. Inordinately long periods of examination and pondering should be avoided in arriving at a decision concerning the advisability of intestinal resection. If the capacity for survival is still in doubt after 10 to 15 minutes of examination and treatment, then intestinal resection should be carried out without further delay. The disastrous consequences which can be expected to follow prolonged peritoneal exposure to gangrenous bowel far outweigh the disadvan-

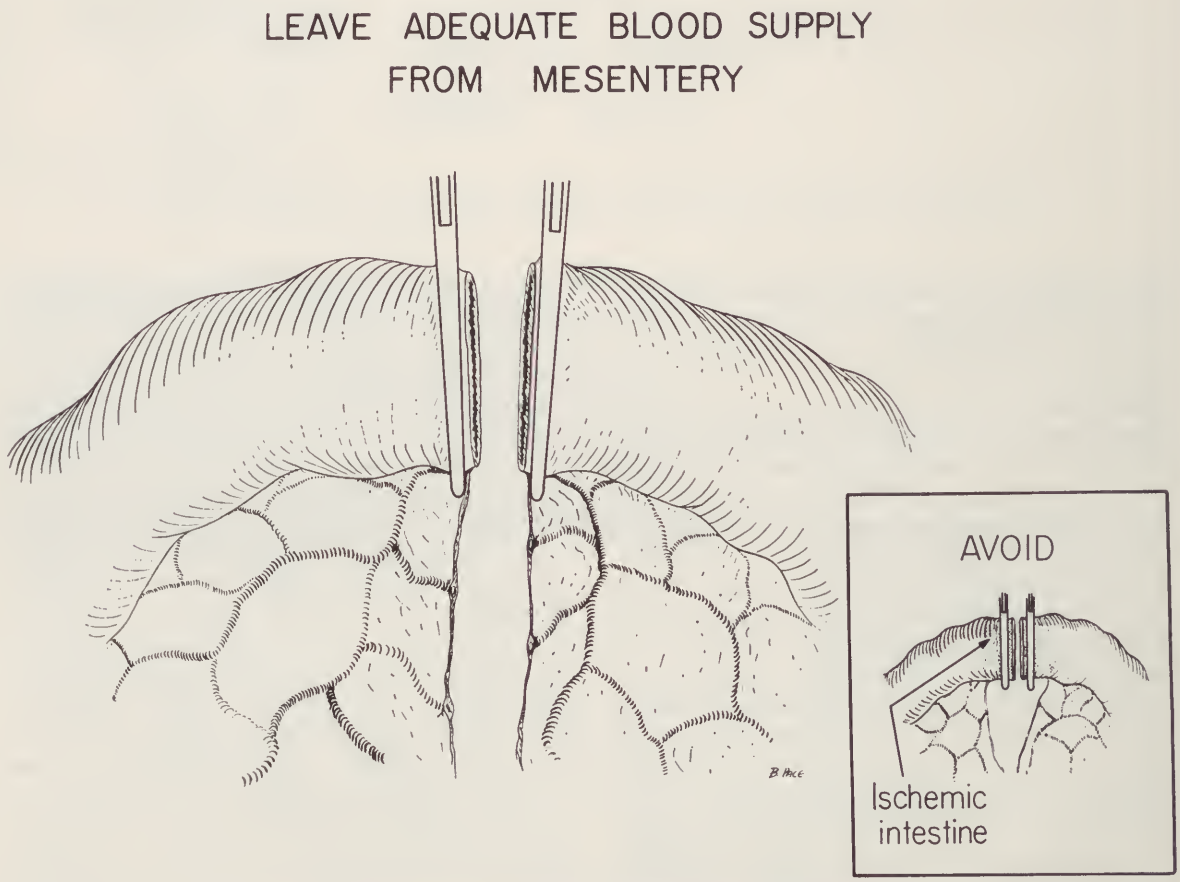


Figure 3. Stripping of mesentery from bowel must not be extensive.

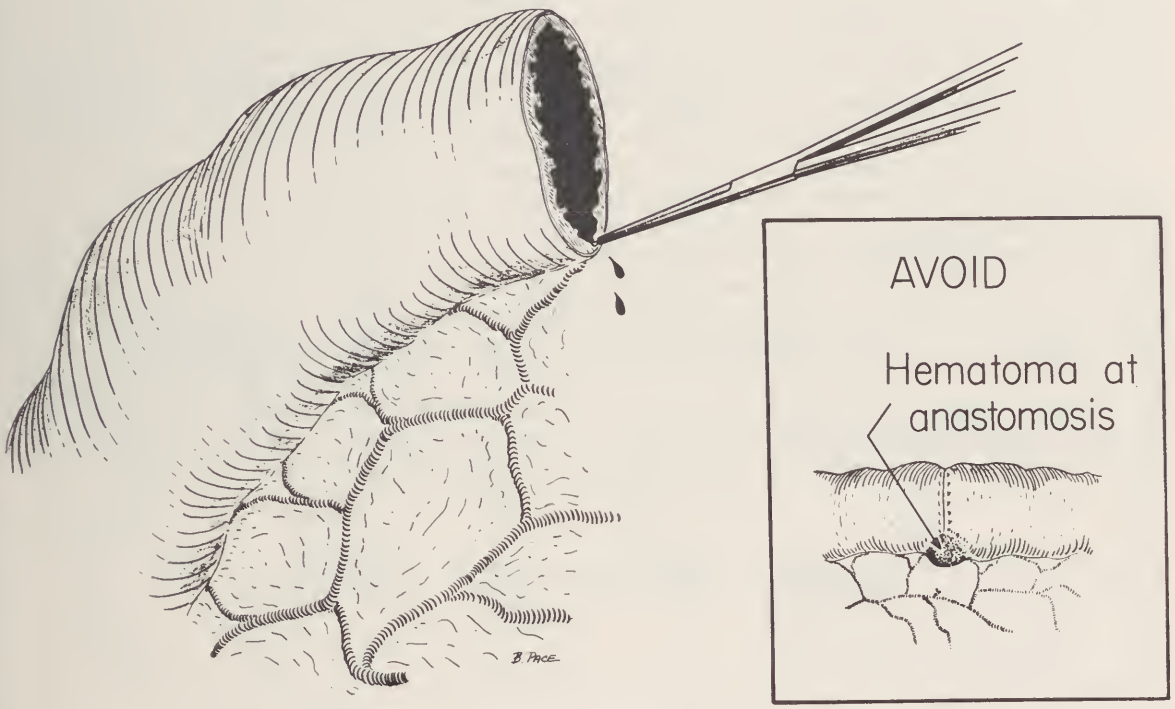


Figure 4. Hemostasis should be complete.

tages of an intestinal resection performed in the absence of ironclad indications.

Unrelieved Intestinal Distention. Utilization of sound therapeutic principles in the management of the obstructed patient often dictates laparotomy for release of the obstruction agent before intestinal decompression has been accomplished during the preoperative period. Not only does prolonged distention interfere with the circulation to the bowel wall but intestinal absorption is practically nonexistent in the presence of advanced degrees of intraluminal pressure. A serious technical problem is also encountered when abdominal wall closure is attempted under such circumstances. It is also highly probable that the return of peristaltic activity along with other normal bowel functions is significantly impaired during the postoperative period in those instances where advanced bowel distention is unrelieved. In those instances where intestinal resection is to be effected, a purse string suture of catgut is placed at the junction of normal and abnormal bowel so that this portion of bowel can be resected along with the specimen. A French rubber catheter (No. 16) with multiple perforation is introduced through a small enterostomy in the center of the purse string. Gentle manipulation of the tube along the lumen of the distended bowel effects decompression in a satisfactory manner. Suction of low intensity should be employed since strong suction is unnecessary and unduly traumatic. Where bowel resection is not required, the small enterostomy is closed in two layers. Peritoneal contamination is minimal and poses no significant problem when this maneuver is carried out in a technically correct manner.

Bowel Anastomosis. Following bowel resection, intestinal continuity is usually established either by side-to-side or end-to-end anastomosis. The former technique, for the most part, assures a satisfactory stoma as well as secure suture lines. More time is required for its execution but the most serious objection concerns the potential development of late complications. Numerous reports in the literature record the occurrence of dilation of the distal portion of the

afferent loop with the formation of a blind pouch which appears to increase in size with time. This stagnant loop of intestine may assume enormous proportions and be responsible for persistent and unrelenting abdominal distention. These patients also complain of frequent episodes of diarrhea along with macrocytic anemia. For these reasons it may be concluded that lateral, side-to-side anastomosis should be avoided whenever possible.

End-to-end intestinal anastomosis provides satisfactory results in most instances if certain technical principles are observed. We prefer to use the open technique for small bowel anastomosis because of the possibility of undue encroachment upon the lumen which is probably more prone to occur during the execution of closed method (Fig. 1). In contrast to experimental animals such as the dog, the human small bowel is not richly endowed with intramural vascular anastomosis. This fact must be remembered during the application of clamps for division of the bowel in preparation for anastomosis. As illustrated in Figure 2 the bowel should be divided in an oblique fashion thus eliminating the possibility of infarction of the bowel edges which are to be utilized during the anastomosis. While it is important that sufficient muscular substances of the bowel wall be available for the placement of sutures in the area of the mesentery, undue "cleaning" of the bowel may impair healing of the anastomosis. Ischemia is certain to result if more than the minimal degree of division and ligation of the mesenteric blood supply is effected (Fig. 3). Ligation of all bleeding vessels should be meticulously carried out before anastomosis is begun (Fig. 4). Hematoma formation in this area could impair healing to the point of leakage at the suture line with abscess formation. Where the two leaves of the mesentery separate to encircle the bowel wall, a small bare spot results in the mesenteric angle. Accurate placement of a suture as illustrated in Figure 5 securely closes this area.

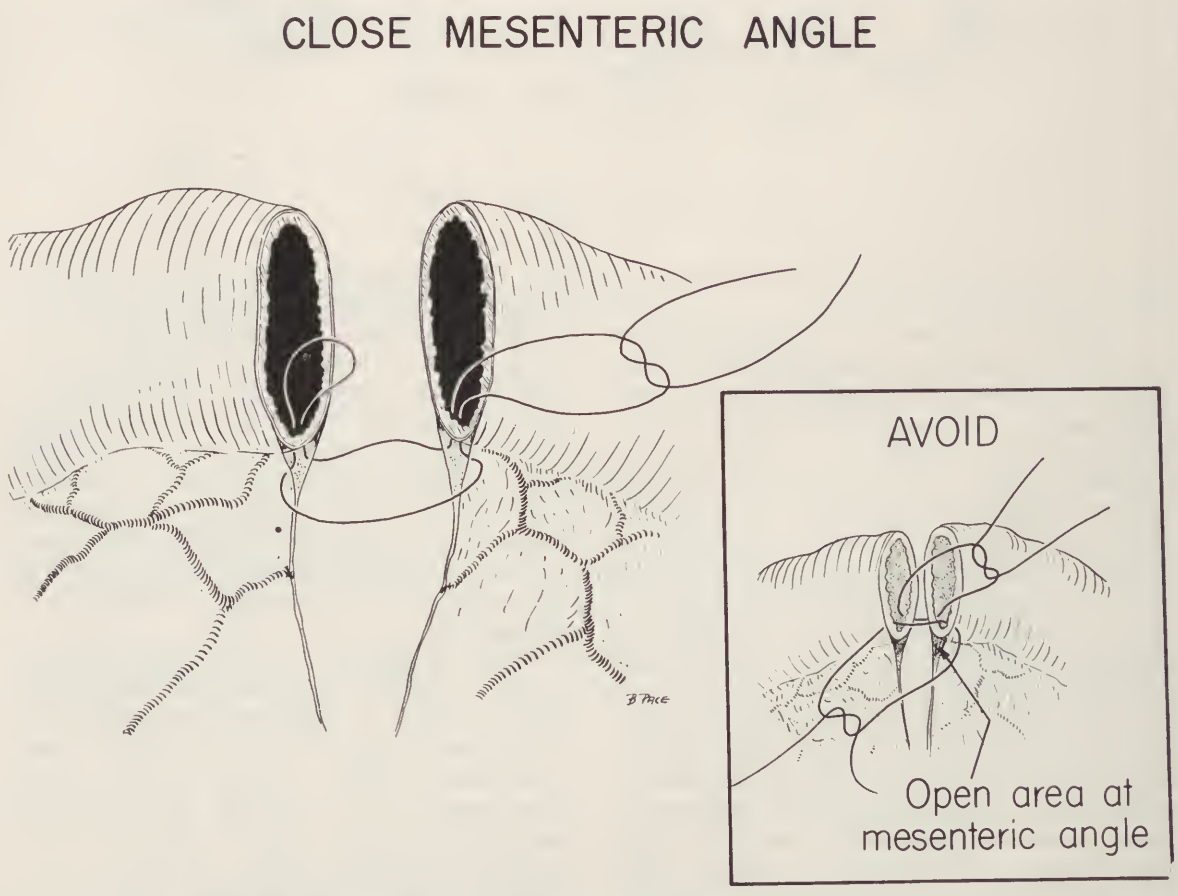


Figure 5. Mesentery should be included in angle suture.

SEROSA TO SEROSA ANASTOMOSIS

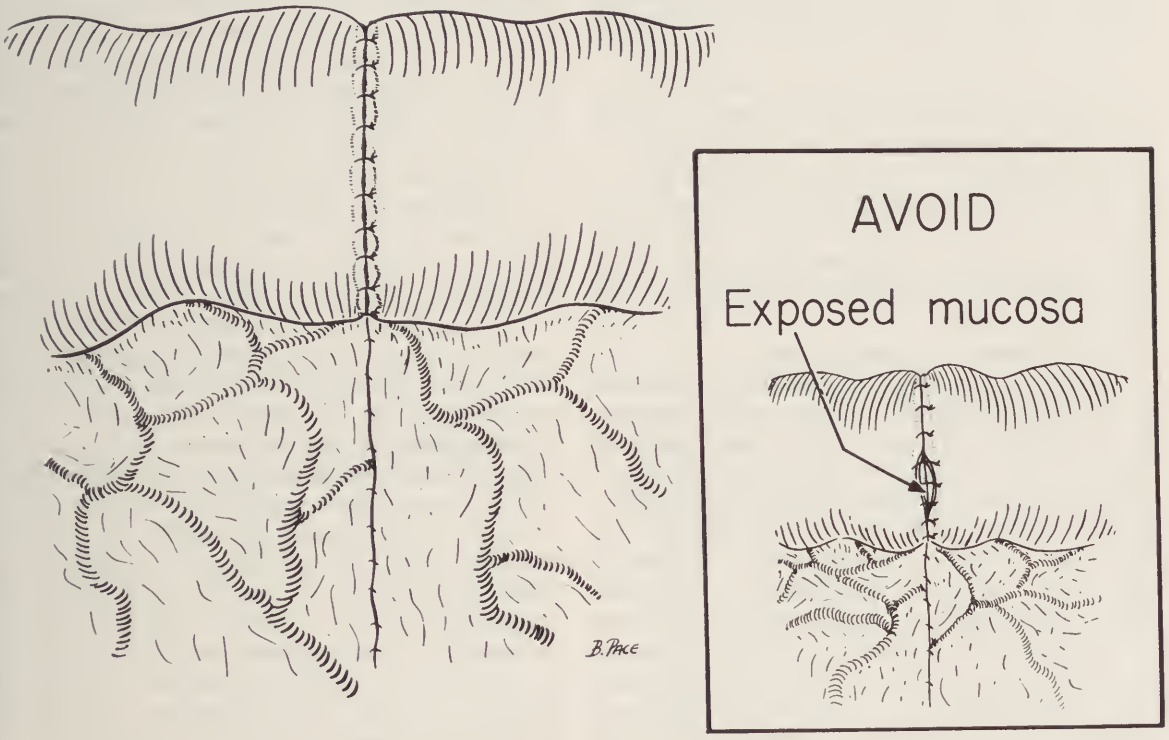


Figure 6. Mucosal inversion must be complete.

Insurance against anastomostic leakage is also obtained by accurate approximation of the serosa during the placement of the second row of sutures. Under no circumstance should the mucosa be visible in the suture line after completion of the anastomosis (Fig. 6).

POSTOPERATIVE PERIOD

Evisceration. For several days, sometimes longer, after the operative treatment of patients with intestinal obstruction, considerable abdominal distention must be anticipated. During this period severe stress upon the abdominal incision may precipitate wound disruption with extrusion of the intestine in many instances. This serious complication necessitates immediate return to the operating room for the closure of the abdominal wound. This may be accomplished with large sutures (No. 2 silk) which are passed through all layers of the abdominal wall.

The incidence of postoperative evisceration can be materially decreased by the routine use of retention sutures during abdominal wound closure. We prefer to place these sutures in an extraperitoneal position so that they traverse only the skin fascia and muscle. The presence of these sutures is a source of considerable satisfaction especially in those instances where advanced intestinal distention has occurred.

Adynamic Ileus. Adynamic ileus of a degree is commonly observed following all abdominal operative procedures. It is particularly prone to occur following surgical relief of the obstructed bowel. Rough manipulation of the bowel during the operative procedure is a factor. Advanced stages of intestinal distention resulting from prolonged nonoperative treatment of simple obstruction postpone the return of normal bowel

activity during the postoperative period. This is especially true if operative decompression is not carried out by the surgeon. Adynamic ileus also results from inadequate repair of fluid and potassium deficits. Peritoneal contamination, even of relatively small proportions, usually prolongs and intensifies the period of postoperative adynamic ileus.

Abdominal distention, hypoactive to absent bowel sounds and obstipation, characterizes the clinical picture of adynamic ileus. Abdominal tenderness is usually minimal in the absence of peritonitis. In the early postoperative period it is difficult to evaluate the significance of abdominal tenderness. X-ray reveals bowel distention along with gas scattered throughout the stomach, small intestine, and colon.

The management of postoperative ileus is simplified if the operator has manipulated the bowel with gentleness during the release of the obstructing mechanism. This is also true where operative decompression of the dilated bowel has been carried out. Potassium abnormalities must be corrected. Antibacterial agents must be utilized where peritonitis is a factor. Progression of abdominal distention is prevented by eliminating the oral intake of both solid and liquid materials. Passage of long intestinal tubes into the lower reaches of the small bowel is virtually impossible during the course of adynamic ileus. Intubation of the stomach can and should be carried out. This will serve to minimize progression of distention by immediate removal of swallowed air as well as to evacuate such liquids as may be regurgitated into the stomach. The administration of agents designed to stimulate peristalsis, such as neostigmine, have yielded little benefit during the postoperative management of the patient with obstruction in our experience.

Recurrent Obstruction (Early). The most common cause of early postoperative bowel obstruction is adhesions. Internal hernia such as may occur through a mesenteric defect following bowel anastomosis may account for this complication. Partial separation of the deeper layers of the abdominal wound with entrapment of bowel has also been encountered. Anastomotic obstruction as a result of excessive narrowing of the stoma is a real possibility when one is dealing with the small bowel. Partial volvulus or acute angulation of distended loops of small bowel may also precipitate obstruction. Of chief concern in diagnosis is the differentiation between postoperative bowel obstruction and adynamic ileus. In both conditions there is abdominal distention. The pain which results from obstruction is more likely to be intermittent, colicky, and sharp, while adynamic ileus produces continuous abdominal discomfort of less intensity. Bowel sounds are usually loud indicating intestinal hyperactivity where obstruction exists while they are hypoactive or absent in adynamic ileus. There will be more profuse drainage through the nasogastric tube in the case of obstruction than in adynamic ileus. Erect films of the abdomen reveal air fluid levels, stepladder appearance of the bowel, and the absence of gas in the colon and rectum where small intestinal obstruction exists.

In addition to elimination of oral intake and the administration of parenteral fluids and electrolytes, nasogastric suction is beneficial in the management of these patients. The long tube holds promise of greater benefit in this particular condition than gastric tubes of the Levin type. Peristalsis is much more active than is characteristic of adynamic ileus. For this reason the chances for negotiation of the duodenum and intubation of the jejunum are much greater in the presence of mechanical obstruction. Where obstruction has resulted from acute angulation of heavy, distended bowel, simple evacuation of the loop may restore continuity of the bowel lumen. Nonoperative treatment may be utilized with considerable expectation of success until the tenth to twelfth postoperative days. In the absence of signs indicative of relief from obstruction at this time, operative intervention should be employed.

Recurrent Obstruction (Late). The abdominal surgeon faces no greater challenge than the obstructed patient who exhibits multiple abdominal scars and gives a history of numerous previous laparotomies for the relief of mechanical ileus. Nonoperative attempts at relief through the use of intestinal suction are probably justified for longer periods under these circumstances than is the usual practice. This failing, the only hope for recovery of the patient rests upon the successful execution of laparotomy with lysis of adhesions and complete mobilization of the small bowel. Two maneuvers are available for attempted control of reformed adhesions in such a manner as not to compromise the lumen of the small bowel. The first is the plication procedure described by Noble in 1937. According to Weckesser[12] *et al.* the following technical points are of importance: (1) All adherent loops of bowel should be completely freed, (2) Adjacent loops of bowel should be sutured along the mesenteric border, (3) Acute angulation of the bowel should be avoided by beginning and ending the sutures about 3 cm. from

each turn, (4) The average length of each turn should be about 6 to 8 inches so that they fit freely across the peritoneal cavity, (5) Moderately heavy chromic catgut should be used for suture material, (6) Internal hernia may be prevented by closing folds in the mesentery where the entire small bowel is not plicated, (7) All raw surfaces involving the bowel should be covered and the bowel should be stimulated during the postoperative period.

The second procedure was described by White[13] and involves internal fixation of the bowel with the hope that a semi-rigid tube will avoid acute angulation of the bowel with preservation of the lumen. A long intestinal tube is passed to the site of obstruction before operation. Mobilization of the entire small bowel is carried out following which the tube is threaded along the lumen until the tip lies just proximal to the ileocecal valve. When preoperative intubation of the small bowel has not been attained, the splinting tube may be introduced into the lumen above the denuded bowel by means of a small enterostomy and threaded into the cecum. The tip is then brought out through the abdominal wall by means of a cecostomy. The tube is usually left in place for ten days.

Recurrence of small bowel obstruction has been observed following the use of both procedures. We believe that one or the other of these operations should be used when proper indications exist since the evidence indicates that a significant reduction in recurrence can be expected. Our preference is for the splinting procedure by use of a long intraluminal tube.

Late Intestinal Stenosis. Following release of an obstructive agent such as a hernia or adhesions where there has been interference with blood supply to the bowel, a decision must be made as to whether or not resection should be carried out. In certain instances the viability of the bowel can be definitely predicted and the patient has no further trouble related to it. Other circumstances dictate immediate bowel resection where viability is questionable or gangrene is definitely established. There is another category in which all available evidence supports the impression that the bowel is definitely viable but the patient returns at a later date with signs and symptoms of intestinal obstruction. Laparotomy reveals the involved segment of bowel to have undergone fibrous contraction with stricture formation. Resection and anastomosis of normal bowel is usually followed by complete recovery. An awareness of this complication should liberalize the indication for resection during the treatment of strangulated intestinal obstruction.

Fistula. The most common cause of small bowel fistula is an improperly performed anastomosis following resection. It may also result as a result of unrecognized injury to the bowel during surgery or from exteriorization of nonviable intestine. From the time of operation until the appearance of small bowel drainage upon the abdominal wall the patient's clinical course is usually characterized by fever, absent bowel sounds, and abdominal distention. If a drain has been left in the abdomen, small bowel content will be discharged in this area. Where this is not the case, drainage usually arises from the incision.

The length and mobility of the jejunum and ileum allow more aggressive surgical attacks under certain circumstances than is possible in the management of duodenal fistulas. When small bowel content begins to flow from the abdominal cavity, supportive measures must be instituted immediately. Local wound management includes the immediate placement of a sump drain so that as little as possible of the drainage is allowed to come in contact with the abdominal wall. Aluminum paste or similar material should be placed on the skin around the fistula so as to minimize the development of skin excoriation. Fluid and electrolyte loss, especially where the jejunum is involved, can assume tremendous proportions over a short period of time. These deficits must be corrected with dispatch and accuracy. Most cases of small bowel fistula are accompanied by peritonitis of a moderate to a severe degree. Antibiotic administration should be instituted early in the course of the disability for this reason. Institution of nasogastric suction exerts very little, if any, effect upon the quantity of drainage from small bowel fistula. Elimination of oral intake results in considerable decrease in drainage when the fistula involves the upper jejunum. Patients with low ileal fistulas are best managed by continuing oral feedings. Hypertonic feeding mixtures are prone to initiate diarrhea and should be avoided for this reason.

There is increasing evidence which indicates that direct surgical attacks upon the fistula should be carried out from one to three weeks after onset.[6, 8] Too often the surgeon employs a course of watchful expectancy while the patient pursues a downhill course and dies. Best results follow direct attacks upon the fistula through the old scar. This entails resection of the altered portion of the bowel and anastomosis. Preoperative introduction of a long intestinal tube into the afferent limb of the fistula facilitates identification at the time of operation. Intubation of the afferent and efferent

limbs through the fistula may facilitate the procedure also. In certain cases because of infection in the old incision or as a result of skin excoriation about the mouth of the fistula, it is advisable to enter the peritoneal cavity at a site removed from the original incision. Exclusion of the fistula from continuity of the intestinal tract must be complete. Partial exclusion fails to eliminate drainage from the site of the fistula. Bowel obstruction distal to the fistula must be ruled out unequivocally before operative treatment is initiated.

SUMMARY

There are numerous pitfalls which may beset the physician who is entrusted with the management of the obstructed patient. Only by meticulous avoidance of these errors and early utilization of effective corrective measures when complications occur can the mortality of this condition be maintained at an acceptable level. The possibility of the existence of obstruction must always be entertained during management of the acute abdomen. While it is dependable in the majority of cases, a negative x-ray film does not always rule out obstruction. Extended periods of nonoperative management of the obstructed patient necessarily embraces the dangers of strangulation as well as bowel perforation from necrosis. Advanced degrees of intestinal distention must not be permitted to exist for inordinate lengths of time. There are dangers which may reach lethal proportions associated with impotent as well as excessive attempts to correct fluid and electrolyte derangements. While much benefit may be derived from nasogastric decompression this modality must be relegated to its proper position as an adjunct to and not a substitute for surgical intervention in the vast majority of cases. Otherwise, a host of complications will emerge to threaten the comfort as well as the survival of the patient.

During all abdominal operations care must be exerted to prevent peritoneal contamination, but this technical complication must be especially guarded against when dealing with the obstructed bowel. The additional insult of peritonitis may well determine the difference between survival and a fatal outcome. Since there are no absolute criteria by which bowel viability can be determined with complete accuracy, the slightest question concerning this point should dictate resection of the questionable segment. At the time of surgery, significant residual distention should be relieved by operation decompression. No phases of management require greater skill and care than the execution of bowel anastomosis following resection.

Complications during the postoperative period can be significantly minimized by expert management during the operative and preoperative intervals. Judicious placement of retention sutures constitutes effective insurance against evisceration. Recurrent early obstruction is best managed by conservative measures. Reoperation must be boldly utilized in those cases where adequate expectant treatment gives little promise of success. Postoperative fistula formation can be adequately managed in many cases by nonoperative measures. However, a small bowel fistula complicated by obstruction necessitates operative intervention for a successful outcome. ★★★

1151 North State Street

These studies were supported by grants from the United States Public Health Service (A-4644).

REFERENCES

1. Barnett, W. O.: Experimental Strangulated Intestinal Obstruction—A Review, Gastroenterology 39:34-40 (July) 1960.
2. Barnett, W. O.: Mechanical Small Bowel Obstruction, Am. Pract. & Digest. Treat. 11:389-396 (May) 1960.
3. Berry, R. E. L.: Obstruction of the Small and Large Intestine, S. Clin. North America 39:1267-1280 (Oct.) 1959.
4. Eade, G. G.; Metheny, D.; and Lundmark, V. O.: An Evaluation of the Practice of Routine Postoperative Naso-gastric Suction, Surg., Gynec., & Obst. 101:229-275 (Sept.) 1955.
5. Farris, J. M., and Smith, G. K.: An Evaluation of Temporary Gastrostomy—A Substiute for Naso-gastric Suction, Ann. Surg. 144:475-487.
6. Harrison, S. P.: The Principle of Complete Exclusion in Fistula of the Small Intestine, Surgery 28:384-392 (Aug.) 1950.
7. Hardy, J. D.: Fluid Therapy, Philadelphia, Lea & Febiger, 1954.
8. Keyes, E. L.: Hastening Operative Exclusion for Fistula of Exteriorized Ileus or Jejunum, A.M.A. Arch. Surg. 63:17-25 (July) 1951.
9. Moore, H. G.; Fletcher, T. L.; Taylor, M. E.; and Harkins, H. N.: A Hazard in the Use of the Intestinal Tube Balloon, Ann. Surg. 137:565-568 (April) 1953.
10. Sims, M., and Schaff, B.: The "Obstructed" Miller-Abbott Tube, Surgery 33:516-517 (April) 1953.
11. Sloan, R. D.: Radiologic Diagnosis of Small Intestinal Obstruction—An Evaluation of the Method, Am. Surgeon 25:591-594 (August) 1959.
12. Weckesser, E. C.; Lindsay, J. F. Jr.; and Cebul, F. A.: Plication of Small Intestine for Obstruction Due to Adhesions—Noble Procedure, A.M.A. Arch. Surg. 65:487-497 (Oct.) 1952.
13. White, R. R.: Prevention of Recurrent Small Bowel Obstruction Due to Adhesions, Ann. Surg. 143:714-719 (May) 1956.

Maternal Mortality In Mississippi During 1959

MICHAEL NEWTON, M.D.
Jackson, Mississippi

MSMA's Committee on Maternal and Child Care has reviewed 52 maternal deaths which occurred during 1959. The results are presented in this paper in terms of adequacy of replies, causes of death, and avoidable factors. Findings for 1959 are compared with those of 1958. Hemorrhage was again the leading cause of death being responsible for 44.2 per cent of the fatalities. According to the committee's evaluations, 88.4 per cent of the deaths were avoidable assuming that ideal circumstances of hospital facilities, patient cooperation, and medical diagnosis and treatment were present.

STUDIES ON MATERNAL DEATHS in Mississippi during the years 1957 and 1958 have previously been presented by the Committee on Maternal and Child Care of the Council on Medical Service of the Mississippi State Medical Association.[1, 2] This report for the year 1959 is based on the same methods of data collection as were described previously. In order to demonstrate any possible trends, the 1959 data are compared directly with those for 1958.

RESULTS

The total number of maternal deaths shows a slight decrease in 1959 (Table I), while the number of replies received to the committee's inquiries and the number of usable replies show a slight increase. On the other hand, the adequacy of the data received (Table II) was somewhat less satisfactory. The mean adequacy was 2.28 as compared with 2.48 for 1958, based on a scale of one for a minimal report to five for a fully completed data sheet, relevant explanatory note, and autopsy report. Also, there were no reports which received a rating of five in 1959.

Slightly less deaths were considered to be due to direct obstetric causes (those resulting from the complications of pregnancy itself) in 1959 (Table III). A significant fall in the proportion of these deaths is, of course, a tribute to improvements in maternal care, but the decrease is not yet sufficient to imply this. Analysis of the causes of direct obstetric deaths (Table IV) indicates that hemorrhage still heads the list, although deaths from this cause did not reach the level of 1957 when they comprised 48 per cent of the total deaths studied. When only the direct obstetric deaths for 1959 are considered, hemorrhage is found to account for 54 per cent. The primary causes for the bleeding episodes were varied, the chief one being abruptio placentae which accounted for four out of the nineteen deaths in this category. According to the committee's evaluations, 88 per cent of the deaths were avoidable (Table V) assuming that ideal circumstances of hospital facilities, patient cooperation, and medical diagnosis and treatment were present. Analysis of the avoidable deaths indicated that one avoidable factor was present in twenty-five cases and more than one factor in twelve. Of all the avoidable factors considered by the committee to be important, physician factors were mentioned twenty-nine times, patient factor seventeen times, and hospital factors four times.

COMMENT

As before, the continued response of Mississippi physicians to the committee's inquiries has

Chairman, Committee on Maternal and Child Care of the Council on Medical Service, Mississippi State Medical Association.

been a source of great satisfaction. As a result of the data presented here, certain changes have been made in the procedures used in the hope of

TABLE I

STUDY MATERIAL

	1958		1959	
	No.	*Per Cent*	*No.*	*Per Cent*
Total Cases	54	——	52	——
Replies Received	45	83.3	46	88.5
Replies Usable	44	81.5	43	82.7

eliciting more complete information. The effects of these changes will be evaluated in later reports.

Since hemorrhage remained the chief cause of direct obstetric deaths, further analysis of these cases was of some interest. Three of the four cases of abruptio placentae occurred in women who had borne six or more children previously. This indicates the danger of this complication in

TABLE II

ADEQUACY OF DATA

	1958		1959	
Category	*No.*	*Per Cent*	*No.*	*Per Cent*
5	3	6.8	0	——
4	5	11.4	7	16.3
3	12	27.3	10	23.2
2	14	31.8	14	32.6
1	10	22.7	12	27.9

the grand multipara. The most frequent factor in the deaths from hemorrhage appeared to be the difficulty of obtaining sufficient blood soon enough to replace that lost. Certainly, in several cases, the patient was moribund when first seen and no amount of blood could have saved her. However, in the four specific instances in which hospital factors were considered by the committee to be

TABLE III

CAUSES OF DEATH

	1958		1959	
	No.	*Per Cent*	*No.*	*Per Cent*
Direct Obstetric	38	86.4	35	81.4
Indirect Obstetric	4	9.1	6	14.0
Undetermined	2	4.5	2	4.6

important, considerable delay in obtaining blood was noted in all instances. The pregnant, parturient, or postpartal woman who loses blood often loses it rapidly and physicians who undertake to look after such patients should be familiar with the quickest method of obtaining blood. Hospital administrators have a real responsibility for insuring that the lines of communication necessary to

TABLE IV

CAUSES OF DIRECT OBSTETRIC DEATHS

	1958		1959	
Cause	*No.*	*Per Cent of Total Deaths Studied*	*No.*	*Per Cent of Total Deaths Studied*
Hemorrhage	16	36.4	19	44.2
Toxemia	14	31.8	11	25.6
Infection	3	6.8	2	4.7
Vascular Accident	1	2.3	1	2.3
Anesthesia	3	6.8	2	4.7
Other	1	2.3	—	——

obtain blood at short notice are well understood by all their personnel.

SUMMARY

1. Fifty-two maternal deaths occurring in Mississippi during the year 1959 have been studied by the Committee on Maternal and Child Care of the Council on Medical Service, Mississippi State Medical Association.

TABLE V

AVOIDABILITY

	1958		1959	
	No.	*Per Cent*	*No.*	*Per Cent*
Avoidable	38	86.3	38	88.4
Non-Avoidable	5	11.4	4	9.3
Undetermined	1	2.3	1	2.3

2. Response to the committee's requests for information regarding maternal deaths has continued to be excellent. Forty-three usable replies were received. Additional steps are being taken in the hope that even more complete information may be obtained.

3. Results are presented in terms of adequacy of replies, causes of death and avoidable factors according to the AMA "Guide for Maternal Death Studies."

4. The findings for 1959 are compared with those for 1958. No significant changes are noted. Hemorrhage remains the leading cause of maternal deaths in Mississippi, being considered by the

committee to be primarily responsible for 19 deaths or 44 per cent of the total deaths studied.

5. The importance of obtaining and transfusing blood promptly is emphasized. ★★★

2500 North State Street

REFERENCES

1. Newton, M.: Maternal Mortality in Mississippi During 1957, J.M.S.M.A., 1:47 (Feb.) 1960.
2. Newton, M.: Maternal Mortality in Mississippi During 1958, J.M.S.M.A., 1:600 (Nov.) 1960.

LIFT UP YOUR EYES

As time clicks the shutter of life's cinemascope
And the events of our troubled era pass in review,
The fragmented frames are all mixed
Like the pieces of some giant jig-saw puzzle
Defying our finite mind.
Man gropes and falls in ideological wars;
Men starve in the midst of bounty;
The plowshare is beaten into swords
To slay a brother who dares oppose
Unjust decrees of regimenting over-lords.
On a flaming charger we commute to the stars,
Rolling back celestial horizons that only God has seen.
Some even dare question, "Who is God and where is He.
Let Him show His face as man prowls the heavenly
Orbit of outer space."
Man in his groping intellect is confused, panic stricken;
The way out is dim, as yet unforeseen;
And yet, in the babel of human voices
If we but bow our heads,
With the faith of our Fathers to sustain us;
If we but listen,
We'll hear again that still small voice,
"Take my hand; Lo, I am with you to the end."

Dewitt Hamrick, M.D.
Written on the occasion
Of the 40th Class Reunion
Mississippi College, Class of 1922

Radiologic Seminar III: Pharyngo-esophageal Diverticulum

ALBERT J. McILWAIN, M.D.
Jackson, Mississippi

PHARYNGO-ESOPHAGEAL diverticulum or Zenker's pouch is relatively uncommon, comprising about 10 per cent of all esophageal diverticula. It arises from the posterior surface of the lower pharynx, at the point where the cricopharyngeal muscle incompletely surrounds the hypopharynx. The point of origin is frequently referred to as the pharyngeal dimple. The diverticulum is of the pulsion type, and as it enlarges, it gravitates posteriorly and inferiorly extending down towards and sometimes into the upper mediastinum. When it enlarges enough to produce pressure on the adjacent esophageal lumen, or to retain significant quantities of ingested materials, it becomes symptomatic.



Figure 1. Small amount of air vertically arranged anterior to sixth cervical vertebrae. Note soft tissue swelling and pressure effect on trachea.

In an adult with a sensation of irritation in the throat, a gurgling noise when swallowing, and



Figure 2. The diverticulum containing barium capped by air in same patient as Figure 1.

Sponsored by the Mississippi Radiological Society.

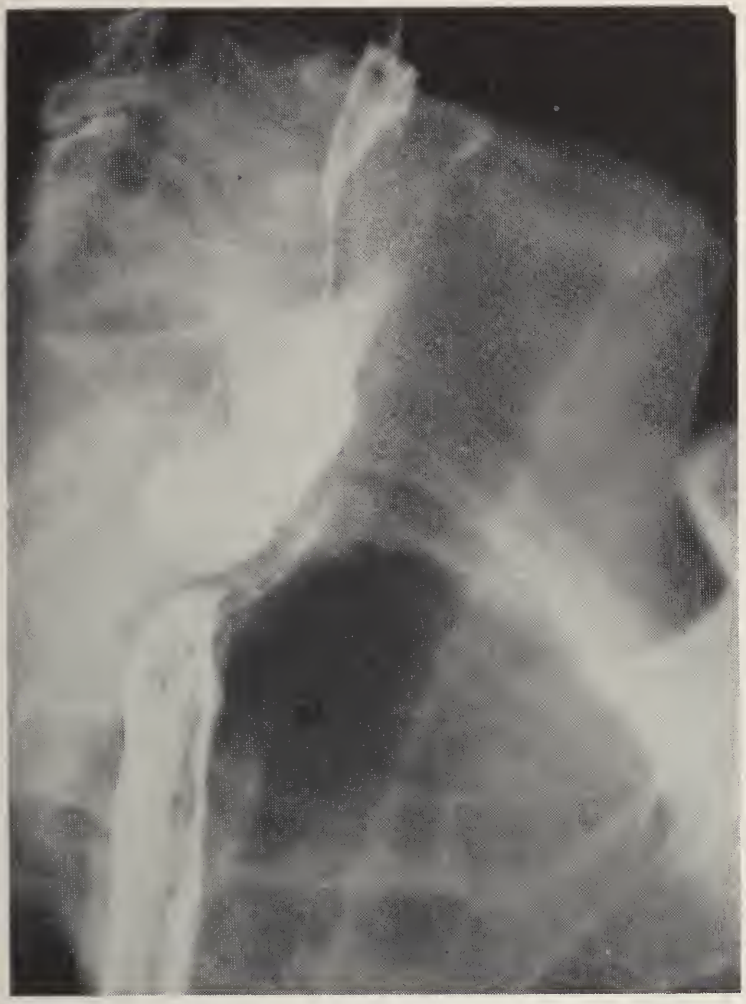


Figure 3. Moderate size Zenker's diverticulum outlined by barium.

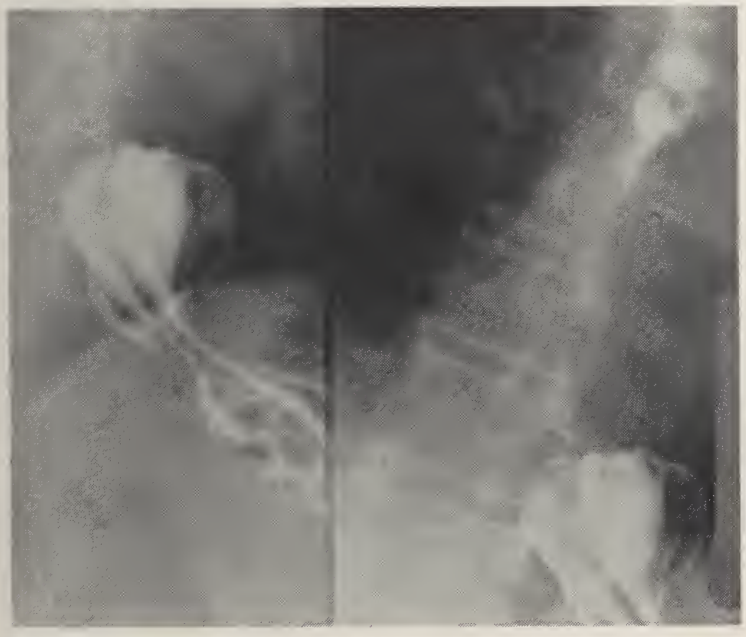


Figure 4. Multiple traction type diverticula middle third of esophagus and hiatus hernia in same patient as Figure 3.

dysphagia, the possibility of a pharyngo-esophageal diverticulum should be considered. In the late stages weight loss and chronic aspiration pneumonia may be clinically evident. Uncommon complications include ulceration, hemorrhage, and perforation, and rarely the presence of a malignancy in the diverticulum has been reported. There is some suggestion that the presence of other esophageal pathology, such as a lower esophageal ring or traction diverticula, or the presence of a hiatus hernia, may enhance the development of a Zenker's diverticulum.

Radiologically the lesion is best shown with the patient in the far oblique or lateral position. On the plain film obtained in the erect position, air or an air-capped fluid level may be identified, along with some pressure effect upon the adjacent trachea (Figure 1). The definitive radiologic examination, however, consists of barium swallow with appropriate films (Figures 2, 3 and 4). The diverticulum is identified as a rounded pocket filled with barium and retained secretions, with the true esophageal lumen lying anteriorly and compressed against the wall of the diverticulum. It will be noted that when the patient swallows, the bolus tends first to enter the diverticulum, and then to spill over into the distal esophageal lumen. This factor tends to enhance the enlargement of the diverticulum as time progresses. ★★★

3000 Old Canton Road

REFERENCES

1. Riberi, Angelo; Battersby, James; and Vellios, Frank: Epidermoid Carcinoma Occurring in Pharyngoesophageal Diverticulum, Cancer 8:727-730, 1955.
2. Solis-Cohen, Leon; Ernser, Matthew; and Friedman, Paul S.: Multiple Pharyngeal and Esophageal Diverticula, Hiatal Hernia of the Stomach, and Chalasia of Esophageal Cardiac Junction, Am. J. Roentgenol. 75:242-245, 1956.

(Turn to page 327)

Clinicopathological Conference XXX

Conducted by the Department of Pathology
Mississippi Baptist Hospital
Jackson, Mississippi

The patient under discussion in CPC XXX is a 57-year-old white male executive who suffered a sudden severe substernal pain which was accompanied by profuse sweating, dyspnea, nausea, and prostration. Prior to this incident he had been in good health except for mild to moderate hypertension which he had had for more than 20 years.

Discussers are Dr. J. P. Melvin, Jr., and Dr. Kenneth M. Heard.

THE PATIENT WAS a 57-year-old white male executive who was well until the afternoon of admission. Then while sitting on the commode, he experienced a sudden severe substernal pain which was nonradiating. He said it felt as "if I had been struck a severe blow in the chest by an iron fist." The pain was accompanied by profuse sweating, dyspnea, nausea, and prostration and required an intravenous narcotic for relief.

For more than 20 years, the patient had had mild to moderate hypertension with blood pressures ranging from 180/110 to 140/90. He had never received treatment. Prior to the present illness, he had been in good health and he denied any exertional dyspnea, orthopnea, cough, previous chest pain, wheezing, syncope, or dependent edema. His appetite had been good and his weight stable. He had had no digestive problems. His bowel habits and stools had been normal. There had been no genitourinary symptoms.

Eight years prior to this admission, he had undergone surgery for a herniated disk and a postnasal drip had been present for years. His mother died of a cerebrovascular accident. There was no family history of hypertension, coronary artery disease, tuberculosis, diabetes, or cancer.

PHYSICAL EXAMINATION

The patient was a well-developed, middle-aged white male who was sweating profusely and who was in severe pain. His temperature was 98.8°, blood pressure 190/110 in the arms, pulse 80. The pupils were equal and reacted to light. The eyegrounds showed distinct disks and mild A-V nicking and no hemorrhages or exudates. The thyroid was not palpable. Excursion of the thorax was equal bilaterally, and the breath sounds were normal throughout the chest. The heart was not enlarged clinically. The rhythm was regular. There were no murmurs, thrills, shocks, or friction rubs. All peripheral pulses were palpable. The right femoral pulse and pulses distal to it were weaker than those on the left. There were no abdominal masses or tenderness, no dependent edema, and no pertinent neurological findings.

An electrocardiogram on admission was interpreted as being within normal limits. A second tracing 12 hours after admission showed moderate elevation of the S-T segments in leads III and AVF, and subsequent tracings showed S-T elevations in leads II, III, AVF and S-T depression in AVL.

On urinalysis specific gravity was 1.030, albumin 2+, sugar negative, and there was an occasional white blood cell. The hemoglobin was 15.4 gm. and the hematocrit 45 volumes per cent. The corrected sedimentation rate was 16 mm. per hour, the white blood count was 15,800 with a shift to the left, and the BUN was 29 mg. per cent. Starting the day after admission, daily serial SGOT determinations were 29, 55, 35, 55. The serum amylase was 94 units and the LE test was negative. A scout x-ray film of the abdomen was interpreted as being essentially normal with moderate osteoarthritis of the lumbar spine, calcification of the abdominal aorta and iliac arteries. A portable x-ray showed slight widening of the

mediastinum with tortuosity of the aorta and clear lung fields.

On the day after admission, the blood pressure showed a progressive rise over an eight hour period to 250/150 in both arms. After the injection of parietal reserpine the blood pressure slowly decreased to 140/90 and remained stable.

Forty-eight hours after admission, a loud pericardial friction rub was heard over the third and fourth intercostal space at the left sternal border, but it disappeared by the following morning. On the evening of the fifth hospital day after a comfortable day, the patient requested a urinal and on attempting to void, suddenly clutched his chest and collapsed. He was dead by the time the intern arrived.

DISCUSSION

Dr. J. P. Melvin, Jr.: "All CPC's, I suppose, make you want to go out on a limb and pick something a little unusual. I have no doubt that when this man came in with substernal pain the burden of proof was on the physician who saw him to prove that he did not have a coronary artery occlusion. This was obviously the diagnosis at the time of admission simply on the basis of description. However, the patient's account of the pain as sudden appears somewhat different from the usual coronary occlusion with myocardial infarction. These patients usually begin with variably increasing pain and usually that of pressure of expansion, not an abrupt pain as is suggested by the patient's description, "it felt as if I had been struck a severe blow in the chest." Still, at that time coronary occlusion with infarction was the best diagnostic bet.

"The patient had no previous history of angina. However, he did have a record of many years of moderate hypertension, which is well recognized as a predisposing factor in coronary occlusion. However, the suddenness of the pain and the preexisting hypertension suggested dissecting aneurysm, particularly since he had been in good health and denied any symptoms of angina or congestive failure.

"Eight years prior to this time he had had uneventful disk surgery. Family history included degenerative vascular disease which really does not help one way or the other. The only positive points, beside the fact that he had documented hypertension and some degree of retinopathy, was slight or moderate diminution in the right femoral pulse and pulses distal to it while the left apparently was within normal limits. It certainly is not unusual to find a 57-year-old man who has inequality of femoral pulses who has no symptoms and appears perfectly healthy. However, it is a point to keep in mind in considering a dissecting aneurysm or an earlier infarct and possibly a mural thrombus and arterial embolism.

"It is interesting to review the tracings of the electrocardiogram. The first ones show evidence of posterior or diaphragmatic epicardial injury. They do not show any QRS changes of diagnostic value. In simplification, all one could say was the man had an inferior pericarditis or an inferior epicarditis. There is no evidence on the cardiograms that he had a true moycardial infarction. There were no changes on the Q waves, positions of the Q are clear-cut, well inscribed, narrow and associated with the same axis as the beginning of the EKG. I would interpret them as normal. However, the second ones are quite different. He definitely did have some evidence of epicarditis. This could be due to early infarct. It could be due to pericarditis. It could be due to leakage of a dissecting aneurysm into the pericardial sacs.

"Transaminases all were normal to slightly elevated. This certainly does not fit with the usual myocardial infarction. Slight or moderate elevations of 55 are well within the range of laboratory variation. However, the slight elevation, being constant, would fit with pericarditis. It was only slightly to moderately elevated when present. This is really of little help except to suggest the man did not have a coronary occlusion with a myocardial infarction.

"A portable chest x-ray showed slight widening of the mediastinum. Other factors suggesting dissection are not described, such as widening of the mediastinum with double densities with obliteration of the retrocardiac descending outline in the thoracic aorta. I take for granted that those were not present, only tortuosity and slight widening being noted in the chest film.

"He maintained an elevated blood pressure. He had severe chest pain following a narcotic given intravenously, which suggests a dissecting aneurysm more than a myocardial infarction. On the day after admission, the rise in pressure again suggests he had a dissection rather than myocardial infarction. The appearance of a friction rub two days after admission does not help one way or the other. It could be coronary occlusion with infarction or the pericarditis of dissection. The fact that it appeared at least makes one wonder if he were leaking into the pericardial sac. The fact that it quit would be a very slight point against that. His sudden death does not provide a definite clue. It could have been due to any of the things we have mentioned or several others.

CPC / Baptist Hospital

"Sudden severe chest pain, then boiling down to a coronary occlusion with infarction, dissecting aneurysm, and the more unlikely diagnoses of massive pulmonary embolism and other rarer things certainly are not suggested. There are some points against dissection. There were no changes in blood pressure, no differential in blood pressure, and no really marked differential in pulsations. It was mentioned that there was a weaker right femoral pulse than on the left. A leukocytosis does not help one way or the other. The man did not have anemia which frequently can be found as an acutely developed anemia with dissection. No bilirubin determinations were done. Frequently bilirubin is elevated in these patients. In summary, what you have is a man who has had severe sudden chest pain who died 48 hours later without enzyme studies suggesting coronary occlusion and without EKG's diagnostic of it.

"Dissection is one of the few things that could do this, and factors supporting this diagnosis are: (1) age group, (2) maintained hypertension, (3) history of hypertension, (4) inequality of the right femoral pulse, (5) widening of the mediastinum, (6) absence of diagnostic QRS changes in the electrocardiogram. These all add up, in my opinion, to a probable diagnosis of dissecting aneurysm, even without obliteration of the peripheral arteries."

AUTOPSY REPORT

Dr. Kenneth M. Heard: "About 3½ cm. above the aortic valve was an extremely large rent in the mucosa of the aorta that almost circumvented the entire lumen. The circumference of the aorta there was about 8½ cm. and the length of the tear was 7½ cm. The cause of death was cardiac tamponade due to hemopericardium following retrograde dissection. One interesting fact was that we were unable to demonstrate the connection between the dissection and the pericardial sac. He had a considerable degree of coronary arteriosclerosis mainly in the left anterior descending branch with about 50 per cent attenuation of the lumen. I think that it is very likely that the EKG changes may be due to pressure of the hematoma around the coronary arteries. There was, however, no myocardial infarction. The dissection extended down into the left common iliac artery where there was a point of re-entry into the lumen. There was no real significant dissection around any of the other major branches of the aorta. Microscopical changes showed a rather typical picture of so-called idiopathic medial cystic necrosis. Our main reason for presenting this case was for discussion of the EKG changes, with the associated difficulty originally of distinguishing this from a myocardial infarction. In one series of about 30 cases reported by a group from Memphis, about 20 per cent had associated EKG changes."



Figure 1. Large transverse tear in ascending aorta.

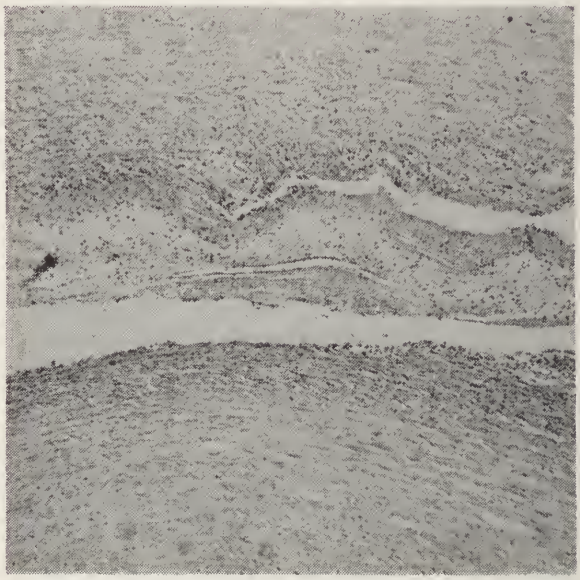


Figure 2. Low power view showing plane of dissection. Note small cystic spaces in media.

DIAGNOSIS: Dissecting aneurysm of aorta with hemopericardium and cardiac tamponade. ★★★

1190 North State Street

Constitution and By-Laws of the Mississippi State Medical Association

CONSTITUTION

Preamble

That more may live longer in the richness and comfort of health; that pain, suffering, and disease may be eradicated to the extent made possible by scientific medical knowledge; that the standards of the medical profession may be maintained on the highest plane of honor, we dedicate ourselves as physicians through this Association. Among us, membership is a privilege, earned by professional qualification, personal honor, and selfless service; it is not a right vested superficially nor by statutory licensure. Truth shall be our quest; diligence, our staff; and service, our purpose.

Article I

NAME OF THE ASSOCIATION

The name and title of this Association shall be the Mississippi State Medical Association.

Article II

PURPOSE OF ORGANIZATION

The purpose of this Association shall be to federate and bring into one compact organization the entire medical profession of the State of Mississippi and to unite with similar associations in other states to form the American Medical Association, with a view toward the extension of medical knowledge, and to the advancement of medical science; to the elevation of the standard of medical education, and to the enactment and enforcement of just medical laws, to the promotion of friendly intercourse among the physicians and to guarding and fostering of their opinion in regard to the great problems of medicine, so that the profession shall become more honorable and capable within itself, and more useful to the public in the prevention and care of disease, and in the prolonging of and adding comfort to life.

The purpose of this Association shall be to promote scientific medical research and practice and shall be a non-profit organization.

Article III

COMPONENT SOCIETIES

Component Societies shall consist of those societies which hold charters from the Association.

Article IV

MEMBERSHIP

Section 1. Members of the Mississippi State Medical Association. Members shall be active, associate, emeritus, or scientific, according to requirements and provisions of the By-Laws. There may also be invited guests. All degrees of membership other than associate and scientific shall be construed as active in connection with the rights and privileges accruing therefrom.

Section 2. Guests. Any physician not a resident of the state may become a guest during any annual session upon invitation of a member of the Association, and shall be accorded the privilege of participating in all the scientific work of that session.

Article V

SESSIONS AND MEETINGS

Section 1. The Association shall hold an annual session during which there shall be held daily not less than two general meetings, which shall be open to all registered members and guests.

Section 2. The time and place for holding the annual session shall be fixed by the House of Delegates, but in emergencies, the Board of Trustees shall have the power to fix, or change, either the time or the place, or both of the annual session.

Article VI

GENERAL OFFICERS

Section 1. The general officers of this Association shall be a President, President-elect, three Vice-Presidents, one from each Supreme Court District, Secretary-Treasurer, Speaker, Vice Speaker, and Editor.

Section 2. The President, President-elect, and Vice-Presidents shall hold terms of one year. The Secretary-Treasurer, Speaker, Vice Speaker and Editor shall be elected for terms of three years.

Section 3. The officers of this Association shall be elected by the House of Delegates on the last day of the annual session following the adjournment of the general meeting, but no person shall be elected to any such office who has failed to attend two-thirds of the past two and current annual sessions and who has not been a member for the past two years.

Section 4. In addition to these general officers, there shall be an Executive Secretary who need not be a physician or member of the Association. He shall be appointed by the Board of Trustees and shall serve at the pleasure of the Association. His compensation and expenses for duties performed shall be fixed by the Board of Trustees and confirmed by the House of Delegates.

Article VII

EXECUTIVE OR CENTRAL OFFICES

The Executive Secretary shall maintain in the city of Jackson suitable offices for the discharge of his duties and for conducting the administrative affairs of the Association.

Article VIII

HOUSE OF DELEGATES

The House of Delegates shall be the legislative, business, and policy-making body of the Association and shall consist of (1) delegates selected by the component societies under authorized apportionment, (2) the general officers of the Association, (3) all past presidents, provided they still be members in good standing of the Association, (4) members of the Board of Trustees and

Councils, and (5) elected committees, Delegates and Alternate Delegates to the American Medical Association, members of the State Board of Health, and members of the Board of Trustees of Mental Institutions, all of whom must be members of this Association.

Article IX

BOARD OF TRUSTEES

The Board of Trustees shall be the executive and governing body of the Association during vacation of the House of Delegates and shall perform such duties as are prescribed by law governing directors of corporations and in the By-Laws of the Association. The Board shall consist of nine members, one from each Association District, elected for terms of three years each. A Trustee shall not serve more than three consecutive terms.

Article X

FUNDS AND EXPENSES

Funds for meeting the expenses of the Association shall be arranged for by the House of Delegates by annual dues, per capita assessments upon the membership, and by voluntary contributions. Funds may be appropriated by the House of Delegates to defray the expenses of the annual session, publications, and for any other purpose approved by the House of Delegates.

Article XI

THE SEAL

The Association shall have a common Seal with power to break, change or renew the same at pleasure.

Article XII

AMENDMENTS

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the delegates registered at the annual session, provided that such amendment shall have been presented in open meeting at the previous annual session, and that it shall have been sent officially to each component society at least two months before the session at which final action is taken.

BY-LAWS

Chapter I

MEMBERSHIP

Section 1. Eligibility. Each component society of the Mississippi State Medical Association shall judge the qualifications of candidates for election to membership therein, which shall be restricted to those persons who hold the degree of Doctor of Medicine from an appropriately accredited source as defined by the American Medical Association, or in lieu thereof, a foreign degree in medicine which is an acceptable equivalent to the Board of Trustees and shall be a citizen of the United States. All candidates for any degree of membership other than associate must be legally licensed to practice medicine in Mississippi. Persons who obtained this degree prior to January 1, 1917, need not comply with this requirement but must be licensed to practice medicine in Mississippi or, if offering to practice in Mississippi must be eligible for license by reciprocity and be a member in good standing of a constituent (state) association of the American Medical Association. Membership in a component society, evidenced by the payment of dues for the current year, shall be a prerequisite to membership in the Association, except that a physician upon his initial application for membership in a component society of the Association shall be required to undergo a waiting period of ninety (90) consecutive days from the date he begins the practice of medicine in the geographical area of the component society before he may be elected to membership in the component society. No physician shall be eligible for membership who has been convicted of or who has plead guilty to either a felony or a violation of a state or federal narcotics law. The duly certified court record shall be *prima facie* evidence of pleas and convictions and cause automatic revocation of membership.

Section 2 (a). Good Standing. Only those members in good standing shall be entitled to the rights and privileges of membership. A physician not in good standing may not be elected to office nor exercise the privilege of voting or attending any session of this Association, scientific or otherwise. The name of a physician upon the properly certified roster of a component society which has paid its annual assessment shall be *prima facie* evidence of his right to register at the annual session of the Mississippi State Medical Association. No member shall participate in any of the proceedings of the annual session until he is duly registered. No delegate or other member shall take part in any of the proceedings of an annual session until he has compiled with the provisions of this section. (b) Change of State Residence. In the event that a member moves from the State, his membership shall continue until, and lapse at the end of, the current fiscal year, but this provision shall not operate to prevent a physician who moves from the state continuing his membership by payment of all dues and assessments to the state Association. (c) Obligations of Membership. When the Executive Secretary of the Mississippi State Medical Association is officially informed by the secretary of a component society that a physician is not in good standing in the component society, he shall remove the name of the physician from the rolls of the Association. A member shall hold his membership through the component society in the jurisdiction of which he practices, provided that a physician living on or near a county line may hold membership in the society most convenient for him to attend. If the society in which he chooses to secure membership does not exercise jurisdiction over the area of his residence, then permission must be obtained from the jurisdiction society to facilitate his affiliation with the extra-jurisdiction society.

Section 3. Degrees of Membership. Members of the Mississippi State Medical Association shall be divided into the following classifications: Active, emeritus, associate, and scientific. (a) Active Membership. Active members shall include all eligible members of component societies in good standing, providing that all dues and assessments in this Association as may be hereinafter prescribed have been received by the Association. (b) Emeritus Members. Any member of the Mississippi State Medical Association who has been an active member for any ten consecutive years and shall have permanently retired from the practice of medicine shall be eligible for election to emeritus membership. Election to emeritus membership for reason of retirement in the case of permanent and total disability shall merit special consideration but shall be subject to ruling by the Board of Trustees. Election to emeritus membership shall be based on the recommendation of the component society and the approval of the Board of Trustees. (c) Associate Membership. Any commissioned medical officer in the United States Army, United States Air Force, United States Navy, or United States Public Health Service, or any physician in the employ of the Veterans Administration, not licensed to practice in the State of Mississippi, stationed in Mississippi, members of medical faculties of medical schools in Mississippi, approved by

the American Medical Association, who are not licensed to practice in the state, any hospital intern, or any hospital resident in Mississippi, may, on election to associate membership by the component society in whose jurisdiction the physician resides become an associate of the Mississippi State Medical Association. Associate members shall not vote or hold office. (d) Scientific Membership. Physicians meeting the professional qualifications set forth in Chapter I, Section 1, may be elected scientific members by component societies. The rights and privileges of scientific membership shall be limited to participation in the scientific work of the association and such members shall not vote or hold office. Scientific members shall pay no dues to component societies or the state Association. In addition to these provisions, the privileges of scientific membership shall be subject to rulings of the Board of Trustees.

Section 4. Dues and Assessments. A per capita assessment determined by the House of Delegates shall constitute the dues of the Association, which assessment shall be collected from all active members by the respective secretaries of the component societies, provided that new members shall be accepted on payment of three-fourths of annual dues after May 1 and one-half of annual dues after September 1. Each active member shall pay the prescribed dues to the officer designated by the component society for transmittal to the Executive Secretary of the Association. Dues shall include a subscription to the official publication of the Association. (a) Members Excused From Payment. The Board of Trustees may, by majority vote, excuse a member from payment of dues because of undue hardship or similar circumstances warranting special consideration provided that the component society shall have excused in full the payment of dues for periods exceeding one year. Such circumstances shall be interpreted to include extended illness and temporary disability. (b) Emeritus Members. Physicians who have been elected emeritus members shall not be required to pay dues in the Association. (c) Payment of Dues and Delinquency. Dues of the Association are due and payable on December 31 of the year prior to that for which dues are prescribed. Failure to pay dues by April 1 of the year for which due shall result in forfeiture of membership privileges and the removal of the member's name from the rolls of the Association. A five dollar ($5.00) reinstatement cost shall be assessed against any member who is delinquent by reason of non-payment of dues after April 1 of the year for which dues are payable. A member in good standing who is called to active duty with the Armed Forces of the United States other than in the regular component shall be carried as an active member without payment of dues until such time as he is released from military service; receipt of publications of the Association during such period shall be at the expense of the member.

Section 5. American Medical Association. Members of this Association shall pay the dues or hold a legal exemption from the dues of the American Medical Association. These dues shall be paid through the component society to the Executive Secretary of the Mississippi State Medical Association, whose duty it shall be to transmit them to the American Medical Association and to obtain proper credits and receipts therefor.

Section 6. Revocation of Emeritus or Associate Membership. Any emeritus or associate membership may be revoked by two-thirds vote of the House of Delegates when, in the opinion of the House of Delegates, the conduct or actions of the emeritus or associate member violates any of the principles of the code of ethics or whose conduct or actions are not becoming to the honor conferred.

Chapter II

ANNUAL AND SPECIAL SESSIONS

Section 1. Time and Place. An annual session shall be held as required by Article V, Section 1, the Constitution of the Mississippi State Medical Association, which session shall in any event be held prior to the annual session of the American Medical Association. The place of the state session shall be fixed in accordance with Article V, Section 2, the Constitution of the Mississippi State Medical Association.

Section 2. Special Session. A special session of the Association or of the House of Delegates may be called by the President, with the approval of the Board of Trustees. The Board of Trustees is empowered to call a special session by majority concurrence.

Section 3. Inviting an Annual Session. A component society desiring the Association and House of Delegates to meet in annual session in a city within its jurisdiction may submit an invitation in writing or verbally through its representative to the House of Delegates at the annual session concerned with the selection of the site for the next regular scheduled meeting. The dates and site of the annual session selected may be changed by majority vote of the Board of Trustees in an emergency requiring such a change.

Section 4. Registration Privileges. Only the following shall be permitted to register at any session:

(a) Active members
(b) Emeritus members
(c) Associate members
(d) Invited guests
(e) Medical students of American Medical Association approved medical schools who are certified to the Executive Secretary of the Association by their respective deans.
(f) Interns and residents who are graduates of American Medical Association approved medical schools and who are connected with an approved hospital and who are certified to the Executive Secretary of the Association by their respective hospital superintendents in event they are not associate members of the Association.
(g) Commissioned medical officers of the United States Armed Forces who are on active duty and who if not associate members are certified to the Executive Secretary by their Post or Base Surgeons or Commanding Officers.
(h) Scientific members.

Section 5. Indebtedness. A member shall not be permitted to register unless all current indebtedness to both the Association and component of proper jurisdiction has been paid.

Section 6. Admittance. Admittance to any meeting of the House of Delegates, any scientific section, or any of the various exhibits at an annual session of the Association shall be limited to members in good standing, duly registered and invited guests, members in good standing of the Woman's Auxiliary to the Mississippi State Medical Association, duly accredited and registered members of the Press, and accredited technical and scientific exhibitors.

Chapter III

GENERAL MEETING

Section 1. Participation. The general meeting shall include all registered members and guests, who shall have equal rights to participate in the proceedings and discussions, but no member shall vote on any question coming before a section of the general meeting except those who have registered as members of such sections. Each section of the general meeting shall be presided over by its chairman. The address of the President and the Distinguished Service Oration shall be delivered before the general meeting at such time and place as may be arranged.

Section 2. Order. The order of exercise, papers, and discussions as set forth in the official program shall be followed from day to day until it has been completed. But no section shall be allowed to place more than five papers on its program, nor more than two invited guest essayists (out-of-state or non-member). When a section program is not completed within the time assigned, it

shall not be allowed to continue into that assigned to another section.

Section 3. Time Restrictions. No address or paper before the Association, except those of the President and Orator, shall occupy more than twenty minutes in its delivery, except that guests may be allowed thirty minutes; and in formal discussion no one shall speak more than five minutes; and in informal discussion no one shall speak more than three minutes and not more than one time.

Section 4. Essayists. With the exception of the invited guests, the essayists must be members of the Association. No name shall appear more than once on the printed program to discuss a paper before the regular scientific sections unless such person qualifies for membership as provided in these By-Laws.

Section 5. Papers. All papers read before the Association shall be its property. Each paper must be read by its author, and must be deposited with the Secretary when read.

Section 6. Failure to Read Paper. No author listed on the program who fails to read a paper at the session may be allowed a place on the program of the next annual session, but if the author, being unable to attend, shows his good intent by forwarding his paper to the Secretary before the annual session, he shall not suffer the penalty.

Chapter IV

SCIENTIFIC SECTIONS

Section 1. Designation of Sections. The scientific sections of the Association shall be as follows: (a) Section on Medicine, (b) Section on Surgery, (c) Section on Preventive Medicine, (d) Section on Eye, Ear, Nose and Throat, (e) Section on Pediatrics, (f) Section on Obstetrics and Gynecology, and (g) Section on General Practice.

Section 2. Section Officers. Each scientific section of the Association shall, as the last order of business during its regular meeting, elect a chairman and secretary who shall serve for a period of one year. A majority of votes cast shall be necessary to elect.

Section 3. Program. The Council on Scientific Assembly shall place any paper in its proper section. The Council shall so arrange the program that no one section shall be given precedence over others two years in succession.

Chapter V

HOUSE OF DELEGATES

Section 1. Apportionment and Representation. Each organized county shall be entitled to representation in all regular and special sessions of the House of Delegates, one delegate and one alternate for each fifty members in the county and one delegate and one alternate for each fraction thereof, but each organized county holding a charter from this organization having made its annual report and paid its assessments, as provided in this Constitution and By-Laws shall be entitled to at least one delegate and alternate, said alternate delegates to act only in the absence of the delegate or delegates from the respective counties. No county in a component society shall be without representation in the House of Delegates; each shall be entitled to one delegate and one alternate without regard to total membership. No alternate may be seated at any regular or special session of the House of Delegates unless the delegates elected from that county shall be absent or otherwise unable to participate in the proceedings. In the event that neither the delegate nor the alternate is able to attend the regular or special session to which they have been accredited, then any *bona fide* resident of the county may, if properly registered, qualify himself as a delegate. No representative of the component society shall be seated in the House of Delegates until all his dues, assessments, and obligations to the component society have been paid. Delegates and alternates shall be elected by their respective component societies for terms of not less than two years and shall assume office on the first day of the annual session following their elections; they shall be *bona fide* residents of the counties which they represent. Their names shall be reported to the Central Office of the Association not later than thirty days prior to the first day of the annual session. Representatives of component societies shall be seated in the House of Delegates only following their proper registration of credentials from the component societies they represent.

Section 2. Meetings and Attendance. The House of Delegates shall meet annually on the first day of the annual session of the Association, and there shall be at least one scientific meeting scheduled for that day. The House of Delegates shall meet for the conclusion of business on the last day of the annual session immediately following the adjournment of the last general or scientific session, provided that these requirements shall not operate to prevent such other meetings of the House of Delegates during the annual session as the House itself may order or the President or Speaker may deem necessary, but no such meetings may be called at times which would conflict with the scheduled general or scientific session. Duly registered members and guests may attend all meetings of the House of Delegates provided that they occupy a distinctly separate section of the meeting hall or auditorium and further provided that they shall not be permitted to participate in any phase of the meeting of the House of Delegates except on invitation of that body. By majority vote, the House of Delegates may enter into executive session, during which time only qualified delegates and officers of the Association may remain in attendance.

Section 3. Quorum. A three-fifths majority of registered and duly seated delegates of this Association shall constitute a quorum.

Section 4. Order of Business. The order of business shall be conducted at the pleasure of the House of Delegates, provided it shall not be in conflict with either these By-Laws or the Constitution. Meetings shall be conducted according to *Robert's Rules of Order, Revised,* and within the bounds of courtesy and this Constitution and By-Laws. Generally, the order of business shall be:

(1) Adoption of the Transactions of the previous meeting.
(2) Reports of Boards, Councils and Committees.
(3) Reports of Presidential Committees.
(4) Special Orders.
(5) Unfinished Business.
(6) New Business.

Section 5. Memorials and Resolutions. No memorials or resolutions shall at any time be issued in the name of the Mississippi State Medical Association by any officer or member thereof until such memorial or resolution has been approved and adopted by the House of Delegates or Board of Trustees.

Section 6. Duties and Responsibilities. It shall, through its officers and otherwise, give diligent attention to foster the scientific work and spirit of the Association, and shall constantly study and strive to make each annual session a stepping stone to future ones of higher interest. It shall consider and advise the public in those important matters wherein it is dependent upon the profession, and shall use its influence to secure and enforce all proper medical and public health legislation and to diffuse popular information in relation thereto. It shall make careful inquiry into the condition of the profession of each county in the state, and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interest in such county societies as already exist, and for organizing the profession in the counties where societies do not exist. It shall especially and systematically endeavor to promote friendly intercourse between physicians of the same locality, and shall continue these efforts until every

physician in every county in the state has been brought under medical society influence. It shall encourage postgraduate work in medical centers, as well as home study and research, and shall endeavor to have the results utilized and intelligently discussed in the component societies. It shall elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and By-Laws of that body, the term of office to begin on January 1 of the year following that of the elections and continuing for two successive years. It shall, upon recommendation of the Board of Trustees, provide and issue charters to counties organized to conform to the spirit of the Constitution and By-Laws.

Section 7. Reference Committees. Business brought before the House of Delegates will normally be referred by the Speaker for hearing, debate, and recommendation to a reference committee. Sufficient reference committees shall be appointed by the President to expedite and assist in the deliberations of the House of Delegates. Such committees shall consist of not less than three nor more than five members, all of whom shall be members of the House of Delegates, who shall serve only during the regular or special session for which appointed. Any member of the Association shall have the privilege of appearing before a reference committee on any issue being considered. Additionally, reference committees may permit the appearance of any individual who, in the opinion of the committee, can assist its deliberations.

Chapter VI

ELECTION OF OFFICERS

Section 1. Ballot. All elections shall be by secret ballot, and a majority of the votes cast shall be necessary to elect.

Section 2. Nominations. The House of Delegates on the first day of the annual session shall select a Committee on Nominations consisting of nine members of the House of Delegates, one from each Association District. It shall be the duty of this committee to consult with the members of the Association and to hold one or more meetings at which the best interests of the Association and of the profession of the state for the ensuing year shall be carefully considered. The committee shall nominate to the House of Delegates three names for each general officer vacancy and two names for all other offices. No two candidates for President-elect may be named from the same county. Nominations for appointment to membership on the Mississippi State Board of Health shall be made by the House of Delegates in accordance with Section 7024, Mississippi Code of 1942, provided that six names shall be submitted, three of whom shall be elected and their names submitted to the Governor as nominees from each district, provided no member shall be nominated who has served two consecutive terms. The House of Delegates shall nominate five physicians when vacancies occur on the Board of Trustees of Mental Institutions which nominations shall be submitted to the Governor in accordance with law.

Section 3. Report of Nominations. The House of Delegates shall receive the report of the Committee on Nominations and elect officers, Trustees, and Council members on the last day of the annual session.

Section 4. Nominations from the Floor. Nothing in this Chapter shall be construed to prevent additional nominations being made from the floor by members of the House of Delegates.

Section 5. Executive Secretary. The Board of Trustees shall select and appoint an Executive Secretary as elsewhere prescribed in the Constitution and By-Laws of the Association.

Chapter VII

DUTIES OF OFFICERS

Section 1. President. The President shall have general supervision over all meetings of the various bodies of the Association, shall appoint all committees not otherwise provided for, shall deliver an annual address at such time and place as may be arranged, and shall perform such other duties as custom and parliamentary usage may require. He shall fill by appointment all vacancies occurring during his tenure of office among the general officers and on the Board of Trustees and Councils and shall be empowered to appoint such committees on an *ad hoc* basis as may be desired or required to conduct the affairs of the Association. He shall be an *ex officio* member of all Councils and committees. He shall be the real and acknowledged head, as well as the personal representative, of the medical profession of the State of Mississippi during his term of office, and insofar as practicable, shall visit by appointment the various sections of the state and the component societies of the Mississippi State Medical Association and assist the Trustees in their tasks of aiding and strengthening the component societies and in making their work more useful.

Section 2. President-elect. The President-elect shall be in charge of the work of organization, including membership, under the direction of the President, and shall exercise these duties and advise with the Vice Presidents and with the Board of Trustees in this phase of their activity. He shall be an *ex-officio* member of all Councils and committees. He shall succeed to the presidency upon the event of the death, resignation, or removal from office of the President. This automatic succession shall not operate to disqualify him from serving the next regular term of office unless he has served more than six months as President.

Section 3. Vice Presidents. The Vice Presidents shall assist the President in the discharge of his duties. They shall further assist the President-elect in the work of organization, including membership in their respective areas, and in promoting the welfare of the Association and the profession of the state.

Section 4. Speaker. A Speaker shall be elected for a term of three years. This officer may be chosen from the membership of the Association, irrespective of any affiliation with the House. The Speaker shall familiarize himself with the rules and usages of parliamentary procedure, with the laws of the House. On him shall devolve the duty of bringing before the House through the various officers and chairmen all reports and other matters that are to receive its attention. He shall preside at all meetings of the House and perform the duties usual to the position and office of chairman except in the appointment of committees, which shall be the privilege of the President.

Section 5. Vice Speaker. A Vice Speaker shall be elected for a term of three years to run concurrently with that of the Speaker. The Vice Speaker shall assist the Speaker in all duties prescribed in these By-Laws.

Section 6. Secretary-Treasurer. The Secretary-Treasurer shall be elected for a term of three years. He shall perform such duties ordinarily devolving on a secretary of a corporation by law, custom, or parliamentary usage and shall enjoy the rights and perform such other duties as may be granted or imposed in the Constitution and these By-Laws. He may delegate such duties as are herein described to the Executive Secretary who shall be responsible therefor. He shall be an *ex-officio* member of all Councils and committees.

Section 7. Executive Secretary. The Executive Secretary shall be appointed by the Board of Trustees and shall serve at the pleasure of the Association. He need not be a member of the Association nor a physician. He shall maintain a Central Office for the Association and shall be responsible for the management and proper functioning of the Central Office to the President of the Association and the Board of Trustees. He shall attend all sessions and meetings of the Association, the House of Delegates, the Board of Trustees, and shall serve at all times to perform such other duties as may be deemed beneficial to the Association by the President and Board of Trustees. He shall assist elected officers, Councils, committees, and Trustees in the performance of their duties. Under instructions from the President, he shall conduct a com-

prehensive program of public education and all such other activities as may disclose favorably to the public at large the aims, objectives, and goals of service of the medical profession in Mississippi. He shall, when requested, place himself in position to assist any of the component socicties of the Association and he shall attend meetings of the component societies when invited by officers thereof. He shall be made custodian of records, books and papers belonging to the Association and he shall keep account of and promptly place under the supervision of the Secretary-Treasurer such funds as may be delivered into his hands in the name of the Association. He shall give bond at the expense of the Association in such amount as may be required. He shall provide for the registration of the members and delegates at the annual session and cooperate in preparing for and arranging all functions of the Association, including the annual session. He shall procure an exact transcript of all proceedings of the House of Delegates. He shall maintain a register of all legal practitioners in Mississippi and he shall maintain detailed and exact records of the membership with regard to component societies, the Mississippi State Medical Association, and the American Medical Association. He shall issue evidencc of membership to each physician who pays the annual assessment and is accepted in the Mississippi State Medical Association. He shall maintain close and complete liaison with the American Medical Association and shall keep the component societies informed of activities, programs, and mandates of both the state Association and the American Medical Association. He shall publish from the Central Office such memoranda, bulletins, and miscellaneous publications as may be directed by the President, the Board of Trustees, and the House of Delegates. He shall conduct the official correspondence of the Association as he may be directed. He shall employ such assistants as may be required, upon authorization of the Board of Trustees. He shall supply each component society with blank forms to be used in connection with membership and reports. He shall maintain records of monies paid by the component societies for assessments and dues. He shall prepare and publish under the direction of the President and Board of Trustees such programs as may be necessary for official functions of the Association. He shall be reimbursed for expenses incurred in the performance of his duties, separately and in addition to his regular compensation.

Chapter VIII

BOARD OF TRUSTEES

Section 1. Board of Trustees. The Board of Trustees shall be the executive and governing body of the Association during vacation of the House of Delegates. It shall consist of nine members, one from each Association District, where terms of office shall be three years and so arranged that only three members are elected annually. A Trustee shall not serve more than three consecutive terms. During vacation, the Board of Trustees shall exercise the powers conferred upon the House of Delegates by the Constitution and these By-Laws, provided that in the exercise of thesc powers thus conferred, the Board of Trustees shall neither consider nor act to contravene any action, mandate, or policy of the House of Delegates which may still be in effect.

Section 2. Officers of the Board. The Board of Trustees shall elect from its membership a Chairman, a Vice Chairman, and a Secretary for terms of one year during the last day of the annual session following adjournment of the House of Delegates. These officers of the Board shall compose its Executive Committee. The duties of the Secretary may be delegated to the Executive Secretary who shall maintain such special records and transcripts of meetings as the Board may desire.

Scction 3. Meetings of the Board. The Board of Trustees shall meet daily during the annual session of the Association and at such other times as necessity may require, subject to the call of the Chairman or on petition of any three members of the Board.

Section 4. Executive Committee. The Executive Committee of the Board of Trustees shall be empowered to act in bchalf of the Board on all matters delegated to it by majority vote of thc Board. Thc acts of the Executive Committee, however, shall be subject to confirmation by the Board.

Section 5. Reports of the Board of Trustees. The Board of Trustees shall make an annual report to the House of Delegates and such supplemcntal reports as necessity may require at a time designated in the regular transaction of the business of the House. The report shall be made by the Chairman, the Vice Chairman, the Secretary, or the Executive Secretary. The reports of the Board shall be made a portion of the annual transactions and proceedings of the Association.

Section 6. Duties of Trustees. Each Trustee shall be organizer and arbiter for his Association District. He shall visit the component, medical socicties within his District during each year and shall make an annual report of his activities and of the condition of the medical profession of each county of his District. Each Trustee shall be reimbursed for expenses incurred by him in traveling within his District or attending special meetings in the performance of his official duties, which will be allowed upon presentation of an itemized and documented account. This provision shall not be construed to include his expenses in attending the annual session of the Association.

Section 7. Public Policy. The Board of Trustees shall have the right to communicate the views of the medical profession and of the Association in the State of Mississippi with regard to matters of medical science, health, sanitation, and allied spheres of activity. It shall approve all memorials and resolutions issued but shall not issue memorials and resolutions heretofore prohibited in these By-Laws.

Section 8. Association Districts. The State of Mississippi shall be subdivided into Association Districts by counties, provided that all counties in a component society shall be in one Association District. These districts are defined as follows:

District 1: Bolivar, Coahoma, Humphreys, Leflore, Quitman, Sunflower, Tallahatchie, Tunica, and Washington.
District 2: Benton, DeSoto, Lafayette, Marshall, Panola, Tate, Tippah, Union, and Yalousha.
District 3: Alcorn, Calhoun, Chickasaw, Clay, Itawamba, Lee, Lowndes, Monroe, Noxubee, Oktibbeha, Pontotoc, Prentiss, and Tishomingo.
District 4: Attala, Carrol, Choctaw, Grenada, Holmes, Montgomery, and Webster.
District 5: Hinds, Issaquena, Leake, Madison, Rankin, Scott, Sharkey, Simpson, Smith, Warren, and Yazoo.
District 6: Clark, Kemper, Lauderdale, Neshoba, Newton, and Winston.
District 7: Covington, Forrest, George, Greene, Jasper, Jefferson Davis, Jones, Lamar, Marion, Pearl River, Perry, and Wayne.
District 8: Adams, Amite, Claiborne, Copiah, Franklin, Jefferson, Lawrence, Lincoln, Pike, Walthall, and Wilkinson.
District 9: Hancock, Harrison, Jackson, and Stone.

COUNCILS

Section 1. Councils. Councils of the Association shall be elected standing bodies of the House of Delegates, responsible thereto. There shall be a Council on Medical Service, a Council on Scientific Assembly, a Judicial Council, a Council on Constitution and By-Laws, a

Council on Legislation, a Council on Budget and Finance, an Editorial Council, and a Council on Medical Education. A Council member shall not serve more than three consecutive terms.

Section 2. Council on Medical Service. The Council on Medical Service shall be charged with the responsibilities of ascertaining and studying all aspects of medical care in Mississippi. It shall examine and make available all facts, data, and opinion on timely and adequate medical care. It shall investigate social and economic aspects of medical care and report its evaluations and findings. It shall suggest means of distribution of adequate quality medical service to the public consistent with the policies of the Association. It shall act as a factfinding and advisory body of the Association. Under its jurisdictions, there shall be assigned the activities of the Association in medical service, emergency service programs, indigent care, and allied medical agencies. There shall be one member from each Association District elected for a term of three years and so arranged that only three members shall be elected for full terms each year. The Council on Medical Service shall appoint Committees on Cancer Control, Occupational Health, Federal Medical Services, Maternal and Child Care, Mental Health, Diseases of the Heart, and Aging. Each committee shall consist of not less than five nor more than seven members appointed for periods of not less than one nor more than three years.

Section 3. Council on Scientific Assembly. The Council on Scientific Assembly shall be composed of the Secretary-Treasurer and the chairmen of the several scientific sections. The Secretary-Treasurer shall be Chairman of the Council. Upon this Council shall devolve the duties and responsibilities of planning the annual session to include all scientific activity and the programming and scheduling of annual session events. The Council shall be empowered to appoint such committees for terms not to exceed one year as may be necessary to assist in the discharge of these duties.

Section 4. Judicial Council. The Judicial Council shall consist of nine members elected for terms of three years each, one from each Association District. The judicial powers of the Association shall be vested in this Council whose decision shall be final. The Council shall have jurisdiction in all questions involving membership in the Association, all controversies arising under the Constitution and these By-Laws, interpretation and application of the Principles of Medical Ethics of the American Medical Association, controversies between two or more component societies of the Association and among members of the Association. The Council shall have appellate jurisdiction in questions and controversies referred to the state Association by appropriate and authorized bodies of component medical societies. Appeals shall be perfected within six months following the date of decision by the constituted authority of the component society. The Council, under these several authorities, may conduct such hearings as may be necessary and after due and legal processes may, by majority opinion, censure, suspend, or expel any member for infraction of the Constitution or these By-Laws.

Section 5. Council on Constitution and By-Laws. The Council on Constitution and By-Laws shall consist of three members elected by the House of Delegates for terms of three years each. To this Council shall be referred all suggested amendments and changes in the Constitution and By-Laws of the Association for recommendation to the Board of Trustees and House of Delegates.

Section 6. Council on Legislation. The Council on Legislation shall consist of nine members, one from each association district, elected by the House of Delegates for terms of three years each which are so arranged that three members are elected annually. This Council shall analyze proposed legislation, recommending to the Board of Trustees courses of action for securing laws in the interests of public health, scientific medicine, as well as medical practice. It shall study and report the need for new and remedial legislation designed to serve the best interests of the state and nation. This Council shall be responsible to the Board of Trustees.

Section 7. Council on Budget and Finance. The Council on Budget and Finance shall consist of three members elected by the House of Delegates for terms of three years each. This Council shall receive reports of the finances of the Association and to it shall be referred all matters pertaining to the annual budget. The Council shall report annually to the House of Delegates, making specific recommendations on the annual budget of the Association. This Council shall be responsible to the Board of Trustees.

Section 8. Editorial Council. The Editorial Council shall consist of the Editor and the Associate Editors, elected by the House of Delegates to serve two years, and the former shall serve as chairman. To this Council shall be referred all reports of scientific subjects and all scientific papers and discussions presented before the Association and its component societies. The Council shall consider for publication in the official organ of the Association such papers, reports, and other data as may serve to further and advance scientific medicine in Mississippi. It shall exercise editorial authority over the official organ of the Association. This Council shall be responsible to the Board of Trustees.

Section 9. Council on Medical Education. The Council on Medical Education shall consist of three members elected by the House of Delegates for terms of three years each. To this Council shall be assigned the responsibilities of encouraging undergraduate and postgraduate study of medicine, licensure, and facilities for medical education in the state. This Council shall be responsible to the Board of Trustees.

Chapter X

COMMITTEES OF THE BOARD OF TRUSTEES

Section 1. Committees of the Board of Trustees. Standing committees of the Board of Trustees shall consist of the Advisory Committee to the Medical Auxiliary, Grievance Committee, and the Committee on Publications. All committees of the Board of Trustees shall be appointed by the Board for terms specified unless their selection is otherwise prescribed.

Section 2. Advisory Committee to the Medical Auxiliary. The Advisory Committee to the Medical Auxiliary shall consist of three members appointed for terms of three years each. The committee shall be charged with the responsibility of advising the Woman's Auxiliary to the Mississippi State Medical Association on matters of organization and program activity relating to the supportive role of the Auxiliary in its work with the Association.

Section 3. Grievance Committee. The Grievance Committee shall be appointed by the President with the advice and consent of the Board of Trustees. Its purpose shall be to prevent or resolve misunderstandings, to clarify and adjust differences between physician and patient, and to assist in maintaining the high levels of professional deportment already established by the *Principles of Medical Ethics*. The committee shall consist of nine members, one from each Association District, appointed for terms of three years each so as to provide for appointment of three members annually. Members of this committee shall not simultaneously serve on any disciplinary or appeal body of the Association or its component societies. The committee shall have authority to compel a response either in writing or by personal appearance from any member of the Association, authority to initiate investigations on its own motion, and authority to file charges in the name of the committee

before the Judicial Council of the Association. Under no circumstances shall the Grievance Committee ever exercise a disciplinary function and its power and authority shall be limited to the receiving of complaints, conduct of investigations, hearings, mediation, arbitration, and where necessary, referral of matters to appropriate bodies for adjudication or discipline. The committee shall prescribe its rules for operation which shall not be in conflict with generally accepted guides promulgated by the American Medical Association.

Section 4. Committee on Publications. The Committee on Publications shall consist of six members. These shall consist of Editor, the two Associate Editors, and three others, the three latter being appointed by the Board of Trustees for terms of three years which are so arranged to provide for appointment of one such member annually. The chairman of the committee shall be designated by the Board. The committee shall implement instructions and policies of the Board of Trustees relating to the official Journal of the Association. Additionally, the committee shall study and recommend to the Board policy proposals relating to organization and production of the Journal, reporting annually its deliberations.

Chapter XI

RULES AND CONDUCT

The Principles of Medical Ethics of the American Medical Association shall govern the conduct of members in their relations to each other and to the public.

Chapter XII

COMPONENT SOCIETIES

Section 1. Component Societies. All component societies now in affiliation with this Association or those that may hereafter be organized in this state, which have adopted principles of organization not in conflict with this Constitution and By-Laws shall, upon application to the Board of Trustees and approval by the House of Delegates, receive a charter from and become a component part of this Association. The Board of Trustees and House of Delegates, on recommendation by the Judicial Council, shall have authority to revoke the charter of any component society whose actions are in conflict with the letter and spirit of this Constitution and By-Laws.

Section 2. Number of Societies. Only one component medical society shall be chartered in any county but nothing in this section shall be construed as to prohibit unofficial organization of medical clubs or other county level groups of physicians whose purpose it is to further and advance scientific medicine and postgraduate medical education.

Section 3. Members of Societies. Each component society shall judge the qualifications of its own members, but as such societies are the only portals to this Association and to the American Medical Association, every reputable and legally registered physician who is qualified under Chapter I, Section 1, of these By-Laws shall be eligible for election to membership, provided scientific members shall also qualify under Chapter I, Section 3, subsection (d) of the By-Laws. Before a charter is issued to any component society, full and ample opportunity shall be given to every such physician in the county to become a member.

Section 4. Right of Appeal. Any physician who may feel aggrieved by the action of the society of his county or District in refusing him membership, or in suspending or expelling him, shall have the right to appeal to the Judicial Council, which, upon a majority vote, may permit him to petition for membership in an adjacent society.

Section 5. Evidence of Appeals. In hearing appeals, the Judicial Council may admit oral or written evidence, as in its judgment will best and most fairly present the facts, but in case of every appeal, efforts at a conciliation and compromise shall precede all such hearings.

Section 6. Area Jurisdiction. A physician living on or near a county line may hold his membership in that county most convenient for him to attend, on permission of the society in whose jurisdiction he resides.

Section 7. Professional Authority. Each component society shall have general direction of the affairs of the profession in its jurisdiction and shall constantly use its influence to the moral and professional betterment of its physicians, to the end that the membership shall embrace every qualified physician in its jurisdiction.

Section 8. Meetings. Frequent meetings shall be encouraged, and the most attractive programs arranged that are possible. The younger members shall especially be encouraged to do postgraduate work, and to give the society first benefit of such labors. Official positions and other preferments shall be unstintingly given to such members.

Section 9. Delegates. Each county shall be entitled to representation in the House of Delegates of this Association, one delegate for each fifty members or fraction thereof. Delegates shall be elected for terms of not less than two years and societies shall report such elections to the Executive Secretary of the Association in no event later than thirty days before the annual session.

Section 10. Duties of Component Society Secretaries. The secretary of each component medical society shall perform such duties as are usual and customary to his office. He shall maintain the official roll of membership for his society, shall collect dues and assessments, and shall make official reports as elsewhere prescribed in these By-Laws to the Association, transmitting dues in behalf of component society members. He shall conduct the official correspondence of his component medical society.

Chapter XIII

FISCAL YEAR

The fiscal year of the Association and its component county societies shall begin January 1 each year and end on December 31 following, but membership in the state Association shall not lapse until April 1 of that year.

Chapter XIV

AMENDMENTS

These By-Laws may be amended at any annual session by a majority vote of the delegates present at that session, after the amendment has laid upon the table for one day.

Chapter XV

REPEALING AUTHORITY

Upon adoption of these By-Laws, all previous By-Laws, motions of record, mandates, policies, rules and regulations in conflict therewith are hereby repealed, except that officers elected to serve in the Association and its component societies shall continue their incumbency until the completion of their previously prescribed terms and their successors elected under the current By-Laws.

Book Review

Mechanisms of Disease. By Ruy Perez-Tamayo, M.D., Professor and Director of the Department of Pathology of the School of Medicine, National University of Mexico. Cloth, 512 pages, 222 illustrations. Philadelphia; W. B. Saunders Company, 1961. $14.00.

The reader expecting to pick up a pathology textbook and find the usual division of material into general pathology and organ or system pathology is in for a considerable surprise with this book. True, there is a division of material into two parts, but in the second part rather than chapter headings such as "Pathology of the Cardiovascular System" or "Pathology of the Genitourinary System," there are chapter headings such as "General Pathology of the Immune Response" and "General Pathology of Body Fluids and Electrolytes." Again, the individual expecting to turn to the pathology textbook for gross and microscopic descriptions of morbid tissue changes is due for surprise. Indeed, the author fulfills well his stated intention in the book's introduction where, after a brief discussion of the meaning of the word pathology, he writes, "The main concern here, however, is not with the word but with the concept; whatever designation is given to this field, the study of the causes, mechanisms and consequences of disease constitutes one of the most important aspects of medicine."

Authors frequently fall into one error or the other of dogmatic presentation of personal opinion or—quite the reverse—a simple cataloging of the many diverse opinions of others. Dr. Perez-Tamayo, while offering the beginning pathology student fewer dogmatic statements than he might like to have for purposes of quotation, does on the other hand offer a veritable wealth of opinion, theory, and collected facts from countless sources in a most readable and thoroughly engaging style. This style is apparent not only in the author's choice of words and method of presentation of his own material but also in the liberal use of quotations from other authors, occasionally to the extent of several paragraphs. These direct quotations are always most colorful and descriptive.

At the expense of detailed morbid tissue descriptions the author repeatedly and consistently lays great stress on full discussion of physiological, biochemical, immunological, and physico-chemical aspects of tissue changes. Particularly strong areas of discussion are those on the general pathology of the immune response and the general pathology of connective tissue.

Proper historical discussion is set forth by the author not only in introductory remarks regarding pioneers in the field of pathology but also in a chapter in epilogue, "The Nature of Disease," which is a most engaging blend of historical and philosophical comment.

Illustrations are numerous, clear, and well chosen. There is a wealth of charts and tables with a nice sprinkling of some of those beautiful diagrams which occasionally seem to make obscure facts and mechanisms so much more simple to understand. The reference material listed at the end of each chapter is extensive. Indeed the sheer number of references cited is staggering.

The student or practitioner attracted not by a blunt collection of facts or listing of theories but rather by a well written, thorough-going, and searching discussion of "Mechanisms of Disease" will find this book by Dr. Perez-Tamayo a delight.

LAWSON C. COSTLEY, JR., M.D.

Domestic Journal

The Family Physician, the Community and the Aged. William F. Sheeley: Geriatrics 16:321 (July) 1961.

The author deplores the widespread misconceptions that still block progress in the treatment of the aged. He notes that too often when the physician sees a disoriented, incontinent, confused person over 65, he immediately concludes that irreversible physicial disintegration has started. The physician is apt at once to lose his professional enthusiasm, and to subconsciously ask himself the question "Is it worthwhile to invest a lot of thought, energy and time in this person who is so soon to be dead?" This pessimism is often contagious and is transmitted either verbally or nonverbally to the family, and to the public, and back

to the patient in a vicious circle. The writer believes that these irrational attitudes by both the public and by physicians are probably more potent causes of mental confusion and emotional depression in the aged than any concomitant senile brain changes.

But the writer sees a gradual break-up of this chain of events, thanks to dedicated workers in medicine and social welfare and other community agencies who are engaging in coordinated and cooperative efforts to improve the care of the aged in the local community. The family physician is in a strategic position to substitute enthusiasm for pessimism, and to initiate and promote community action in combatting the lonesomeness and the tragedy of old age, and to agitate for progressive education and research in geriatrics.

Neurological and psychiatric disorders in the aged are often reversible. Comprehensive diagnosis will often uncover both minor and major disorders, the early correction of which will postpone indefinitely irreversible changes. Adjustment of the electrolyte balance, increasing cerebral blood flow by appropriate stimulants, the use of vasodilators and capillary dilators, administration of vitamins, and helping an individual to a measure of independence, plus self-sufficiency in community, are all effective therapeutic modalities which operate on a broad front.

Psycho-social therapy can often preserve at least partial efficiency in spite of considerable brain damage. Morbid depression with threatening suicide can be effectively treated by timely social, psychologic, and somatic therapies. Tranquilizers and energizers and even shock therapy often reduce anxiety and depression and make for a more hopeful outlook for the patient, even restoring the individual to an earning productive capacity.

The family physician by the acceptance of an old person can lead the family into bringing that aged person into many family activities and thereby enrich the lives of both patient and family and free the family of the guilt of an unfulfilled obligation. Household chores, baby-sitting, housework, part-time jobs in the community are helpful therapeutic measures. Clubs and churches can profitably use the old person's skill and experience and judgment and availability of time, and give the aged person a sense of being needed, and at the same time free younger members for other church and club duties. The family physician can initiate a community complex for handling local geriatric problems, using the general hospital nursing homes and community social agencies in a coordinated cooperative effort. This would include a study of over-all job requirements of the community, in which part-time jobs and other relatively low demand jobs can be listed and be made available for the geriatric patient.

The family physician is also in a key situation to de-emphasize state hospitalization, to provide suitable arrangements in local general hospitals, nursing homes, and foster homes, in order to keep these patients more comfortably cared for in something approaching a home environment rather than cluttering up the extremely limited facilities of most state hospitals.

And finally, the writer suggests that local medical schools should be urged to offer short postgraduate courses aimed to increase the physician's skill in geriatrics with special emphasis on psychiatric features. Nonpsychiatric physicians in some areas are admitting their patients to psychiatric wards of general hospitals and are then continuing to exercise a measure of responsibility for their care, consulting with various specialists on the staff to meet the special needs of the patient. Education in geriatrics, therefore, continues while the patient is under active treatment.

ROLAND E. TOMS, M.D.

Books Received

JOURNAL MSMA has received the following books for review. Selections will be made for more extensive reviews in the interest of the readers and as space permits. Further information on the books listed will be furnished on request. Physicians are urged to submit reviews of additional books which, in their opinion, merit comment.

Drug Therapy. By Frank C. Ferguson, Jr., M.D., professor of pharmacology and chairman of the Department of Pharmacology, the Albany Medical College of Union University, Albany, N. Y. 411 pages. Philadelphia: Lea and Febiger, 1962. $7.50.

New and Nonofficial Drugs. Prepared by Council on Drugs of the American Medical Association. 900 pages. Philadelphia: J. B. Lippincott Company, 1962. $4.00.

A Primer of Water, Electrolyte and Acid-Base Syndromes. By Emanuel Goldberger, M.D., lecturer in medicine, Columbia University, N. Y. Second edition. Philadelphia: Lea and Febiger, 1962. $6.00.

Medical State Board Questions and Answers. By Harrison F. Flippin, M.D., clinical professor

of medicine, Graduate School of Medicine, University of Pennsylvania. Tenth edition. 507 pages. Philadelphia: W. B. Saunders Company, 1962. $9.50.

Current Therapy—1962. Edited by Howard F. Conn, M.D. 790 pages. Philadelphia. W. B. Saunders Company, 1962. $12.50.

Introduction to the Study of Disease. William Boyd, M.D., professor emeritus of pathology, the University of Toronto, and visiting professor of pathology, the University of Alabama. Fifth edition. 478 pages with 174 illustrations. Philadelphia: Lea and Febiger, 1962. $7.50.

Problems in Surgery. By Frank Glenn, M.D., Lewis Atterbury Stimson professor of surgery, Cornell University Medical College, New York, N. Y. Edited by George E. Wantz, Jr., M.D., assistant professor of clinical surgery, Cornell University Medical College, New York, N. Y. 512 pages with illustrations. St. Louis: the C. V. Mosby Company, 1961. $16.50.

General Pathology. Based on lectures delivered at the Sir William Dunn School of Pathology, University of Oxford. Edited by Sir Howard Florey, professor of pathology. Third edition. 1104 pages. Philadelphia: W. B. Saunders Company, 1962. $22.00.

Modern Concepts of Hospital Administration. By Joseph Karlton Owen, Ph.D., specialist in hospital administration, Louis Block and Associates, Inc., Silver Spring, Md., with the coordinative assistance of Robert K. Eisleben, M.A., assistant administrator of Little Company of Mary Hospital. 823 pages with illustrations. Philadelphia: W. B. Saunders Company, 1962. $16.00.

A Textbook of Obstetrics. By Duncan E. Reid, M.D., William Lambert Richardson professor of obstetrics and head of the Department of Obstetrics and Gynecology, Harvard University Medical School. 1087 pages with illustrations by Edith Tagrin. Philadelphia: W. B. Saunders Company, 1962. $18.50.

Clinical Pathology. By Benjamin B. Wells, M.D., assistant chief medical director for research and education in medicine, Veterans Administration. Third edition. 541 pages with illustrations. Philadelphia: W. B. Saunders Company, 1962. $9.00.

Early Detection and Diagnosis of Cancer. By Walter E. O'Donnell, M.D., visiting investigator, Sloan-Kettering Institute for Cancer Research, New York, N. Y., and Emerson Day, M.D., director, Strang Cancer Prevention Clinic, Memorial Hospital for Cancer and Allied Diseases, New York, N. Y., and Louis Venet, M.D., associate director, Strang Cancer Prevention Clinic, Memorial Hospital for Cancer and Allied Diseases, New York, N. Y. 286 pages with 82 figures and three color plates. St. Louis: The C. V. Mosby Company, 1962. $12.00.

Physical Diagnosis. By Ralph H. Major, M.D., professor of medicine and of the history of medicine, the University of Kansas, and Mahlon H. Delp, M.D., professor of medicine, the University of Kansas. Sixth edition. 355 pages with illustrations. Philadelphia: W. B. Saunders, 1962. $7.50.

A Study of Psychophysical Methods of Relief of Childbirth Pain. By C. Lee Buxton, M.D., Department of Obstetrics and Gynecology, Yale University School of Medicine. 116 pages. Philadelphia: W. B. Saunders Company, 1962. $4.75.

Treatment of Injuries to Athletes. By Don H. O'Donoghue, M.D., professor of orthopedic surgery, University of Oklahoma Medical School, Oklahoma City. 649 pages with illustrations. Philadelphia: W. B. Saunders Company, 1962. $18.50.

Internal Medicine in World War II: Activities of Medical Consultants. Prepared by Medical Department, United States Army with Colonel John Boyd Coates, Jr., M.C., editor in chief and W. Paul Havens, Jr., M.D., editor for internal medicine. Washington: Office of the Surgeon General, Department of the Army, 1961. $7.50.

RADIOLOGIC SEMINAR / Continued

3. Hawes, Lloyd E., and Walker, James H.: Severe Pulmonary Disease Subsequent to Zenker's Diverticulum, New England J. Med. 253:209-212, 1955.
4. Schatzki, Richard, and Gary, John E.: The Lower Esophageal Ring, Am. J. of Roentgenol. 75:246-261, 1956.

DEATHS

BRIMSON, JAMES ASHTON, Jackson. M.D., University of Arkansas School of Medicine, Little Rock, 1938; member of the Association of Military Surgeons, Health Physics Society, Nuclear Medicine Society, and the Mississippi Public Health Association; Captain, U. S. Army, six years; Captain, U. S. Navy, 13 years; died May 29, 1962, aged 47.



The President Speaking

'A Good Beginning'

C. P. CRENSHAW, M.D.
Collins, Mississippi

NO BETTER BEGINNING could have been given the 1962-63 association year than that of the 94th Annual Session. Milestones in scientific work were reached and exceeded. The Symposium on Space Medicine was a feature of national significance. A purposeful House of Delegates found wise and prudent answers to questions of policy. Fellowship among physicians was never better nor has official registration been greater.

It is easy to conclude that such a splendid beginning guarantees a happy ending but, unfortunately, this is not necessarily true. Our opportunities have never been greater but our challenges literally overshadow them.

As Mississippi medicine moves into its 106th year of formal organization, I feel that we are challenged on three fronts: First, the fabric and fiber of our free choice, private system is on trial. Seldom has any profession faced legislative crises of graver import and never has a profession had more urgent need for unanimity of purpose and dedication.

Second, we doctors have the challenge of extending and improving medical care. It is not a challenge based on imperfection or inequity because American medical care has no peer. It is simply a matter of making the system so absolutely effective that nonprivate alternatives will be all the more ridiculously academic. Finally, our state medical association must prepare itself for greater service in greater depth both to the public and the profession.

Many of our victories have been easy within frames of reference for future years. Unless we are willing to reassess, redefine, and *reapply* ourselves and our resources in greater measure, then we shall speak of service and success in a past tense. ★★★

JOURNAL OF THE
MISSISSIPPI STATE
MEDICAL ASSOCIATION

Volume III, Number 7

July 1962

EDITORIALS

Struggle Against Narcotism: Phase II

I

THE OPIATE VENDETTA is officially terminated and the aesculapian Corsicans have publicly buried their hatchets. On May 14, 1962, the American Medical Association and the National Research Council issued a joint statement on narcotic addiction in the United States. Designed to clarify their respective and conjoint positions on this venerable area of controversy, the document was simultaneously concurred in by the U. S. Bureau of Narcotics.

Technically, the air has been cleared. AMA and NRC agree that present effort should be strengthened to reduce, and if possible, eliminate narcotic addiction. Additionally, they advocate providing the best possible treatment and rehabilitation services for addicted individuals.

But the near universal public and professional misunderstandings thus resolved should never have happened because neither medical policy nor federal law gives them the remotest warrant of confidence. Yet, many earnestly believed that the Bureau of Narcotics considered addiction a crime —a myth totally contrary to law—and that the American Medical Association has been crusading for establishment of ambulatory clinics for maintaining addicts—something the medical profession denounced 38 years ago and never approved in the first place.

II

American medicine and the National Research Council accept the historical premise that society has found it necessary to employ legal controls to prevent propagation of specified diseases which constitute a hazard to the public health. Narcotism is such a hazard. Few will reject the scientific viewpoint that successful and humane withdrawal of narcotics from addicted individuals necessitates constant control in a drug-free environment, always under complete medical supervision.

Similarly, there is virtual unanimity of professional opinion that maintenance of stable dosage levels in individuals addicted to narcotics is generally inadequate and medically unsound. Successful treatment demands extensive post-withdrawal rehabilitation and associated therapeutic services.

Logically, the two organizations support complete withdrawal from narcotics, appropriate and adequate treatment, measures to permit civil commitment for this treatment in a drug-free environment, advancement of methods and measures toward rehabilitation of the addict under continuing civil commitment, research to gain new knowledge about treatment and prevention of narcotism, and wide dissemination of factual information on narcotic addiction.

The U. S. Bureau of Narcotics concurs in these positions and the views of the two scientific bodies.

III

Until 1914 when the Harrison Act was passed by the Congress with the support of the American

Medical Association, there was no federal regulatory legislation in connection with the use of narcotics or opiates. Even after the historic enactment, the government experienced difficulty in developing an effective regulatory agency. At its June 1919 meeting, the AMA House of Delegates created a Special Committee on the Narcotic Drug Situation in the United States from which an edifying report was received the following year. As a consequence of the report, a Standing Committee on Narcotic Drugs of the Council on Health and Public Instruction was appointed.

But despite its active interest in implementing the Harrison Act, AMA assumed no formal position with respect to operation of the new law until 1924. Apparently, the matter was debated for three years because at the AMA New Orleans meeting in 1920, the committee stated that "ambulatory treatment of drug addiction, as far as it relates to prescribing and dispensing of narcotic drugs to addicts for self-administration at their convenience, should be emphatically condemned."

The 1924 policy utterance left nothing in question: "Your committee desires to place on record its firm conviction that any method of treatment for narcotic drug addiction, whether private, institutional, official, or governmental, which permits the addicted person to dose himself with habit-forming narcotic drugs placed in his hands for self-administration, is an unsatisfactory treatment of addiction, begets deception, extends the abuse of habit-forming narcotic drugs, and causes an increase in crime.

"Therefore, your committee recommends that the American Medical Association urge both federal and state governments to exert their full powers and authority to put an end to all manner of so-called ambulatory methods of treatment of narcotic drug addiction, whether practiced by the private physician or by the so-called narcotic clinic or dispensary."

And this has been the policy of the American Medical Association since 1924. The indirect inferences of the policy as to the means by which the problem of narcotism might be met are of equal importance with the positive pronouncements.

IV

At the 1954 San Francisco meeting, AMA delegates received a resolution from the Medical Society of the State of New York favoring legalization of distribution of narcotics to addicts under rigorous safeguards. The resolution, although never adopted, stimulated studies and reports from which some misunderstanding may have evolved.

At the height of the controversy, the Mississippi State Medical Association's Board of Trustees became deeply concerned over the problem and the misunderstanding. Studies were conducted independently of other professional and public bodies by a special committee of the Board and in 1959, a policy position, recommended by the Trustees, was adopted by the state association's House of Delegates.

The ambulatory clinic program was denounced as scientifically unsound and the Mississippi AMA delegates were instructed to oppose such proposals but to support increased research, realistic institutional care plans for addicts, and development of related programs seeking solution of the problem.

The Board of Trustees recognized the need for stringent narcotics control measures and urged that addict-patients be hospitalized or institutionalized. As corollary measures, the Board asked that effort be exerted to correct causality where possible, to rehabilitate the patient if possible, and to assist the patient's effecting social redress.

MSMA's position has since been hailed as enlightened and reasonable. It is based on substantial studies and reliable policy genesis. And it has never been at issue.

V

What's past should be prologue to an era of mutuality and effective understanding between the scientific community and governmental agencies concerned with narcotics. It is regrettable, although understandable, that medicine's position on narcotism was misconstrued. In the same context, instances of overly zealous enforcement measures and communications failure may have supplied bases for doubt as to objectives being sought by government agencies.

Narcotism remains a challenge to medical science and to society. MSMA's Board of Trustees has stated that "the problem is serious, dangerous, and complex, demanding urgent and decisive action to meet it effectively." The date May 14, 1962, may be second in importance only to 1914 in the chronological record of the eventual scientific and social victory over narcotism.—R.B.K.

The Bionauts

Medical research has borrowed from the glossary of space exploration to coin an intriguing new term dramatizing scientific challenges. Dr. Jonas Salk, the famed Pittsburgh virologist, compares the researcher to the nation's astronauts who are probing outer space. Salk feels that medical science is approaching an era of similar achievement in biology, one he calls probing the mysteries of inner space within the human cell.

These researchers are "bionauts," Dr. Salk says.

The discoveries of the bionauts may more directly influence the health and life of people than will all ventures beyond the planet. Dr. Salk was correct in 1955 and chances are that he's correct again.—R.B.K.

A Friendless Cuss

The giant 94th Annual Session boasted an official attendance of 1,303, a new, all time record for the Mississippi State Medical Association. But the Comptroller Department at state headquarters had a tough time proving that the attendance wasn't 1,299 and here's how it happened.

Immediately following an annual session, data from registration cards are transferred to IBM punch cards which, in the case of members, reflect individual attendance upon annual sessions for 12 consecutive years. This having been done for the 1962 meeting, the association's computer was fed the data and "asked" to print names and addresses of members who did and didn't attend by local societies. In three tries, the electronic contraption consistently came up four doctors short of the manual count.

Rechecking the data, the problem, and the program, it was discovered that four physicians at the meeting were registered on certificates of component medical societies, their respective 1962 dues having been paid but not received prior to the annual session. A further check showed that the IBM makes a distinction between current dues paid members and those technically delinquent! Hence, it wouldn't recognize the four physicians whose dues had not been received.

Even though it's now been told the difference, we suspect the association's IBM system remains a highly efficient but friendless cuss.—R.B.K.

PERSONALS

CURTIS P. ARTZ of Jackson attended the Surgeon General's Committee on Metabolism in Trauma in Washington, D.C., May 27-29.

C. P. CRENSHAW of Collins has been named a member of the executive committee of the American Cancer Society, Mississippi Division.

JAMES D. HARDY of Jackson presented the annual honor lecture and received an award for distinguished achievement at the Pittsburgh Surgical Society in Pittsburgh, Pa.

J. B. LEVENS, a native of Gulfport, has been named public health director for Hancock County in conjunction with Pearl River County. He will assume his duties in early July following completion of his internship at the Mississippi Baptist Hospital. Dr. Levens was graduated from the University of Mississippi School of Medicine.

SAMUEL O. MASSEY JR., and his family were selected as Picayune's "Family of the Year" by the Civic Woman's Club. Dr. Massey, a native of Pelahatchie, has been practicing in Picayune for the past four years. He is currently president of the Picayune Lions Club, a director of the Chamber of Commerce and the Jaycees, chief of the medical staff at Crosby Memorial Hospital and in his second term as secretary of the Pearl River County Medical Society.

NEW MEMBERS

The following physicians have been elected to membership by their respective component medical societies in the Mississippi State Medical Association and the American Medical Association:

AZORDEGAN, AZIZOLLAH ALBERT, Jackson. Born Teheran, Iran, July 15, 1925; M.D., University of Geneva, Faculty of Medicine, Switzerland, 1951; rotating internship, Hospital Contonal of Geneva, Switzerland; general surgery residency, Youngstown Hospital, Ohio; neuropsychiatry residency, Mental Health Institute, Cherokee, Iowa; neurosurgical residencies, Lahey Clinic, Boston, Mass., Kennedy V.A. Hospital, Memphis. Tenn., and

University of Mississippi School of Medicine, Jackson; member of the Iowa Neurosurgical Society and the American Psychiatric Association; Captain, U. S. Air Force, two years; elected April 3, 1962, by Central Medical Society.

MORRIS, LAWRENCE BRUNSON, Macon. Born Macon, Miss., Aug. 10, 1934; M.D., University of Mississippi School of Medicine, Jackson, 1960; interned John Gaston Hospital, Memphis, Tenn., one year; elected Dec. 12, 1961, by Northeast Mississippi Medical Society.

SUBER, ROBERT LEE, Pascagoula. Born New Albany, Miss., Aug. 25, 1932; M.D., University of Tennessee College of Medicine, Memphis, 1956; interned McLeod Infirmary, Florence, S. C., one year; member of the American Medical Association; Captain, U. S. Army, three years; elected Nov. 8, 1961, by Coast Counties Medical Society.

WINGO, MAURICE ROSS, Gulfport: Born Plainview, Texas, Sept. 2, 1920; M.D., University of Texas Southwestern Medical School, Dallas, 1948; interned U. S. Marine Hospital, Cleveland, Ohio, one year; residencies, Lafayette Charity Hospital, New Orleans, La., and V.A. Hospital, New Orleans, La.; member of the American Medical Association, Southern Radiology Society, and the American College of Radiology; certified by the American Board of Radiology; elected March 7, 1962, by Coast Counties Medical Society.

Film on Radiation Exposure Available From ACR

A 45-minute color film graphically describing the control of radiation exposure in diagnostic radiology is now available from the American College of Radiology. A 16 mm sound production, the film is entitled "Radiation: Physician and Patient."

Emphasizing points which lower radiation exposure to patients undergoing radiological examinations, the film concerns the radiobiological, genetic, and somatic effects of radiation, dosage problems in diagnostic x-ray procedures, and the clinical applications of radiations.

The film may be secured from the American College of Radiology, 20 North Wacker Drive, Chicago 6, Ill., the State Board of Health, or the American Medical Association.

State Morbidity Reported Through June 1

The Mississippi State Board of Health reports the following occurrence of morbidity for 1962 through the 22nd week of the year, ending June 1, 1962. Case totals reported are shown opposite the disease condition.

Tuberculosis, pul.	277
Tuberculosis, O.F.	23
Brucellosis	1
Dysentery	
Amebic	13
Bacillary	12
Food Poisoning, NOS	3
Septicemia, Strep.	4
Septicemia, Staph.	35
Leptospirosis	1
Toxoplasmosis	1
Staphylococcus Infection	7
Diphtheria	5
Meningococcus infection	
Meningitis	9
Meningococcemia	1
Meningitis, O.F.	29
Other complications of smallpox vaccination	2
Tularemia	2
Tetanus	6
Encephalitis, infectious	10
Mononucleosis, infectious	33
Diarrhea of newborn	2
Hepatitis, infectious	466
Helminthic infections	
Hookworm	342
Ascariasis	148
Strongyloides	21
Histoplasmosis	3
Other fungus infections	1
Streptococcus infections	
Scarlet fever	142
Strep throat	1,955
Malaria	1
Rheumatic fever	2
Pertussis	12
Measles	2,453
Chickenpox	689
Mumps	255
Influenza	11,177
Gonorrhea	2,080
Syphilis	
Early	63
Late	143

Medical School Confers M.D.'s on 62; Speaker Urges King-Anderson, Federal Aid Enactments

Fifty-eight Mississippians and four out-of-state candidates received M.D. degrees at the sixth annual commencement of the University of Mississippi School of Medicine. Advanced degrees in health sciences were awarded to five candidates and 13 women received B.S. degrees in nursing. Boisfeuillet Jones, Washington, D. C., special assistant for health and medical affairs to HEW Secretary Abraham Ribicoff, was the principal speaker at graduation ceremonies. Dr. Howard A. Nelson, Greenwood, addressed the graduates at a special breakfast sponsored by the medical alumni association of which he is president. The baccalaureate service was conducted at Daniel Memorial Baptist Church and the chancellor's reception, at the university center.

Candidates for M.D. degrees were presented by Dr. Robert Q. Marston, medical school dean, and degrees were conferred by Dr. J. D. Williams, the chancellor.

The administration spokesman, Mr. Jones, told graduates that "new frontiers . . . lie before you as physicians, nurses, and researchers in health." He said that "the university-based medical center is the key to the future of the nation's health" with its roles of teaching, research, and service.

Mr. Jones stressed the working partnership between universities and the federal government in research, forecasting that demands of the future will place still heavier burdens upon every member of the grand alliance. He said that "the Kennedy administration has sought ways by which the federal component of our health partnership could best and most appropriately assist in meeting the new and growing demands of the 1960's."

The health, education, and welfare representative expressed "high hopes for the Health Professions Educational Assistance Act as a means of providing federal assistance in the training of professional health manpower," observing that there is an acute shortage of such personnel in the South.

The legislative measure to which he referred, H. R. 4999, sponsored by the administration, would provide federal aid in scholarships to medical students, for increased salaries of medical faculties, for construction and rehabilitation of medical school physical plants, and for increased federal participation in research.

He urged enactment of the program, stating that "the enormous cost of supporting medical and dental education, including necessary expansion, can no longer be borne alone by states and private philanthropy."

Mr. Jones spoke for enactment of the King-Anderson bill, referring to the "large and growing numbers of old people in our society with stringently limited financial resources." He said that there is widespread need among these same people for very costly medical services.

Quoting HEW Secretary Ribicoff, he said, " 'It would be tragic for us to admit in the richest nation in the world that the benefits of health care are too expensive for our people.' "

M.D. graduates represented 35 Mississippi cities and the states of Alabama, Illinois, Indiana, and New York. State communities with more than one graduate were Calhoun City, two; Greenville, two; Jackson, 10; Laurel, two; Lucedale, two; Meridian, four; McComb, six; and Quitman, two.

The June 10 exercises were conducted in the auditorium of the First Baptist Church, Jackson.

MSMA Plays 'Instrumental' Role In Kentucky Dedication

When the Kentucky State Medical Association dedicated its new headquarters building on May 20, MSMA played an instrumental role. The gold suture scissors used to cut the ceremonial ribbon were a gift of the Mississippi association to its Kentucky counterpart.

In acknowledging the gift, KSMA officials sent along a penny, true to the superstition that sharp

objects must be "purchased," not given, for fear of cutting the friendship.

J. P. Sanford, KSMA executive secretary, expressed the appreciation of Dr. G. L. Simpson, association president, and Dr. Wyatt Norvell, chairman of the board, and all association members writing that "everyone commented in a most favorable way on this exhibition of friendship and goodwill."

The dedicatory services for the $150,000 building included addresses by Kentucky Governor Bert T. Combs of Frankfort and AMA President-elect George M. Fister of Ogden, Utah.

The building, located at 3532 Janet Avenue, has approximately 7,000 square feet of floor space. Comprised of two wings—one housing the executive offices and the other the administrative services—the building is designed to provide ample space for all meetings.

The executive wing has a board room covering approximately 1,000 square feet of space, an office for the president, and kitchen facilities. The administrative side also has space for committee meetings and in the 12 rooms located on that side all of the association's administrative functions are carried out. Also in the administrative wing are the offices of the Rural Kentucky Medical Scholarship Fund, the Postgraduate Medical Education Office, the Journal, Physicians Placement, and Woman's Auxiliary.

KSMA is now in its 111th year and has 2,091 members.

Mississippi Hosts Defense Specialists

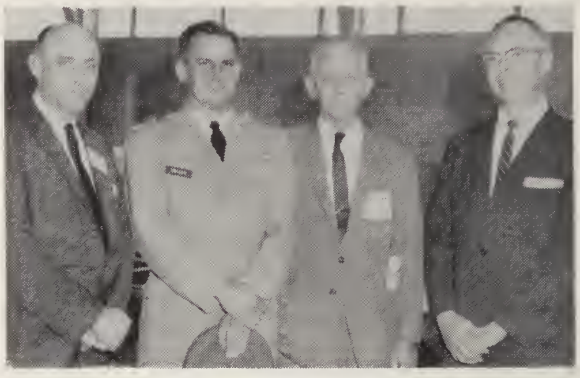
Mississippi hosted some of the nation's top medical defense specialists May 23-24 when a Health Mobilization Training Course was taught in Jackson.

Jointly sponsored by the Mississippi State Board of Health and the Alabama State Health Department, the training course was the ninth one held in the nation to acquaint heads of the state government and allied medical professions with their responsibilities during a civil defense emergency.

Disaster problems explored during the three day course included mass casualties, fallout, epidemics, and psychological attrition.

Keynoter for the course was William P. Durkee, director for Federal Assistance, Office of Civil Defense, who spoke on "National Preparedness."

Other featured speakers were Lieutenant Colonel William E. Mayer of the Department of Military Science, Medical Field Service School, Brooke Army Medical Center; Lieutenant Colonel Thomas G. Nelson, chief of the Surgery Branch, Department of Medicine and Surgery, Brooke Center; Lieutenant Colonel Donald H. Behrens, dep-



One of the chief features of the Mississippi-Alabama Health Mobilization Training Course, hosted by the State Board of Health May 23-25, was a Civil Defense Emergency Hospital Demonstration. The demonstration was directed by Lieutenant Colonel Thomas G. Nelson, chief of Surgery Branch, Department of Medicine and Surgery, Brooke Army Medical Center, Fort Sam Houston, Texas. He and other officials are pictured in the rear of the National Guard Armory where the operational exercise was staged. From the left are Dr. Lynn Abernethy of Jackson, program moderator, Lieutenant Colonel Nelson, Dr. A. L. Gray, state health officer, and Dr. Norman Tufts, chief of Health Mobilization Training Section of the Communicable Disease Center, Atlanta.

uty director, Department of Nuclear Science, Medical Field Service School, Brooke Center.

Speakers from the National Division of Health Mobilization included Paul K. Keatzel, chief of Resource Evaluation and Sim B. Shattuck, acting chief of the Program Service.

Carrier Fined for Maintaining False Medical Certificates

In a recent federal court decision, an interstate carrier based in Jackson and two of its employees were fined $1,100 on charges relating to the falsification of medical certificates.

According to the testimony, a number of medical certificates were falsified by copying legitimate

certificates which had been prepared by examining physicians.

The case was instituted at the instance of the Interstate Commerce Commission's Bureau of Inquiry and Compliance upon information furnished by the Bureau of Motor Carriers. MSMA furnished pertinent information in the initial stages of the investigation.

Heart Research Chair Is Filled at UMC

Dr. William DeLoss Love has been named to fill the Mississippi Heart Association chair of cardiovascular research at the University of Mississippi School of Medicine beginning July 1.

Currently an associate professor of medicine at Tulane University School of Medicine, Dr. Love will hold the academic rank of professor of medicine at UMC.



Dr. Love

Supported by a Mississippi Heart Association annual grant of $20,000 toward salary, equipment and supplies, the chair is the first one endowed at the medical school and the only chair endowed by a voluntary health agency in Mississippi. Money to support the chair comes from the February Heart Fund and year-round heart memorials.

As proposed by the heart association, the chair is being established to enlarge "the scope of research in the cardiovascular field, to train others for research, and to stimulate research and teaching at the medical school."

Dr. Love is a graduate of Washington University School of Medicine. He interned at Barnes Hospital in St. Louis and was a fellow at Tulane before being named to the faculty in 1952. He also served as clinician for the cardiac work evaluation unit established at Tulane by the Louisiana Heart Association.

Dr. Love is a diplomate of the American Board of Internal Medicine and a fellow of the American College of Physicians. He has gained national recognition for his studies of regional blood flow using radioactive isotopes.

Pathologists To Conduct Bilirubin Survey

In order to stimulate interest in the accuracy of bilirubin determinations, the Standards Committee of the College of American Pathologists has announced a National Bilirubin Survey.

The committee points out that accurate bilirubin measurements are of great importance in decisions regarding the need for exchange transfusion in newborn erythroblastosis fetalis. They are also of great importance in the differential diagnosis of the various icteric syndromes in patients of all ages and are of great concern in evaluating prospective blood donors.

Bilirubin measurements must be consistent from year to year so that treatment is based upon the same criteria in successive patients, says the committee. Therefore, reliable bilirubin standards should be utilized with stable photoelectric photometers.

Participants will first receive a set of survey samples. Following the survey, a critique of bilirubin standards and methods of analyses will be provided.

Physicians and hospitals that wish to participate in the survey may register by sending $8.00 to the Standards Committee, College of American Pathologists, Prudential Plaza, Chicago 1, Illinois. Applications must be received not later than Aug. 1, 1962.

New Orleans Assembly Schedules 26th Meet

The 26th annual meeting of the New Orleans Graduate Medical Assembly will be held March 4-7, 1963, with headquarters at the Roosevelt Hotel.

Officers for 1962 are Dr. Ralph M. Hartwell, president; Dr. W. E. Kittredge, president-elect; Dr. John G. Menville, first vice president; Dr. Lee D. McLean, second vice president; Dr. N. Leon Hart, third vice president; Dr. Mannie D. Paine, Jr., secretary; Dr. Samuel R. Staggers, treasurer; Dr. Gilbert C. Tomskey, director of program; Dr. Jason H. Collins, assistant director of program, and Dr. Daniel C. Riordan, assistant director of program.

Members of the executive committee include Drs. Barrett Kennedy, L. Sidney Charbonnet, Jr., Jack E. Strange, Louis A. Monte, and Simon V. Ward.

X-rays Said Slight Risk To Reproductive System

The amount of radiation to the reproductive organs of Americans from medical uses of x-rays was estimated to be a third to a sixth of earlier presumed levels by a representative of the American College of Radiology testifying before the Joint Committee on Atomic Energy.

Dr. Richard H. Chamberlain, chairman of the department of radiology at the University of Pennsylvania School of Medicine in Philadelphia, said that based upon studies in other countries, an early estimate of about 150 thousandths of a rad per year is much too high. The figure is more likely to fall between 25 and 50 thousandths of a rad. The medical dose figure compares with natural background radiation of about 150 thousandths of a rad absorbed annually by people living in most parts of the United States.

Thus, the slight risk involved in medical x-rays is far outweighed by the benefits involved, Dr. Chamberlain told the congressmen. The amount of radiation exposure needed to make diagnostic studies has been decreased in recent years through the development of faster films and intensifying devices which require less energy to provide clear pictures, he said.

Louisiana Legislature Defeats Cultist Bill

A legislative battle over chiropractic licensure in the Louisiana legislature ended in defeat for the cultists, following an almost identical pattern to the effort in Mississippi last February and March. A proposal to license chiropractors was defeated 11 to 5 in the House Public Health Committee.

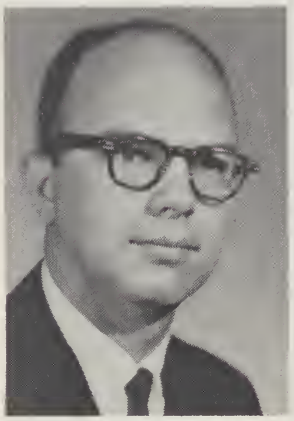
Louisiana thus remains one of the four states granting no licensure or state sanction to chiropractic. As in Mississippi, debate was in committee.

Pelican state lawmakers heard imported chiropractors testify for the measure together with local cultists. Representatives of the Louisiana State Medical Society headed by Dr. Ralph Riggs of Shreveport, president, opposed the measure. The legislative approach in Louisiana held that the practice of chiropractic should be "regulated," thereby circumventing the key issue of granting a cult licensure and approval by the state.

The four states denying recognition to chiropractic are Louisiana, Massachusetts, Mississippi, and New York.

Mathews To Attend Management Course

It'll be back to school July 28 for MSMA staffer Charles L. Mathews. Mr. Mathews, who has served with the association as assistant executive secretary since June 1960, will attend a week-long organization management course for association executives at Syracuse University in Syracuse, N. Y.



Mr. Mathews

Under a nomination by the Mississippi Association Executives Forum, Mr. Mathews was awarded a Mississippi Economic Council scholarship for the course. The MEC scholarship is given annually to a qualified association executive early in his career.

The Syracuse course offers intensive instruction in association management which relates to business methods adapted to association work, association financial structures, meeting organization, and service methods for committees.

A graduate of the Louisiana State University, Mr. Mathews was employed by the First Mississippi Corporation prior to joining MSMA. His work at LSU included one year of graduate study in the School of Law.

Prior to entering LSU, Mr. Mathews served with the Army Security Agency during 1952-55. He withdrew from college in 1956 to work a year with the Dow Chemical Company.

A native of Jackson, Mr. Mathews was born on March 1, 1933, the son of the late Clyde H. Mathews and Mrs. Vivian Collins Mathews. He is married to the former Phoebe Quaintance of Silver Spring, Md. They have one child, Charles L. Mathews, Jr., five years old.

Both Mr. Mathews and Rowland B. Kennedy, MSMA executive secretary, are members of the Mississippi Association Executives Forum, an organization of full-time managing and staff executives of Mississippi industrial, trade, and pro-

fessional associations whose purpose is self-education in association management.

Mr. Mathews's participation in the Syracuse course is part of MSMA's continuing staff training program.

Continental Offers Golden 65 Program

Continental Casualty Company of Chicago, one of the pioneers in insurance for the aged, offered a unique Golden 65 Health Insurance Program during the month of June.

Under this program, Continental offered three plans to anyone 65 or over: 65 Plus for basic short-term hospitalization and surgical protection, 10,000 Reserve for extended hospitalization, and 5,000 Medical to meet out-of-hospital medical expenses. There were no health requirements written into the program.

Dr. Clement Martin, medical director of Continental, which has insured more than one million persons 65 and older, says "Ability to pay is not the real problem bothering the elderly. What troubles them is the fear that sudden illness or an accident will deprive them of their lifetime savings and financial resources."

He noted that Continental's plan was designed to help older persons meet their medical needs and pointed out that the number of older people who can pay for their health needs is growing every day.

MEC Attacks Compulsory Health Care Proposals

The Mississippi Economic Council—State Chamber of Commerce has reiterated its opposition to compulsory health care proposals in social security, as being pushed by the federal administration, and termed efforts to pass the measure in Congress "typical of what happens when tax-dollars are thrown into legislation."

In a June 6 news release, Vaughan Watkins, Jackson attorney and MEC president, said the principle of socialized medicine, as outlined in administration proposals, is in direct opposition to the organization's policy adopted in the early 1950's. That policy, Mr. Watkins said, calls for voluntary health insurance.

"The big push by the administration and its well-organized bureaus is typical of what happens when tax-dollars are thrown into legislation," he said. "The power being assumed by the executive department is becoming more and more dangerous to citizens. There are now obvious attempts to pressure both the judicial and legislative branches to conform to its wishes."

He said the bill being pushed would increase social security taxes to provide certain health care services to those 65 and over who are currently receiving cash Social Security benefits, or who could receive cash benefits if they were not working and earning self-supporting income.

The MEC official said the big question surrounding the proposal is should the private, voluntary system be used, or should certain health and medical care programs be turned over to a federal bureau and be made compulsory.

"Actually, the proposal is a foot-in-the-door proposition, whereby the federal bureaucrats hope to make a major beach-head landing for further socialization of our way of life," Mr. Watkins said. "It is time for all citizens to speak out against such invasions of freedom."

Dr. Hamrick Attends MC Reunion



Members of the 1922 graduating class of Mississippi College met for a reunion Saturday at the Governor's Mansion where they were guests of one of their class members, Governor Ross R. Barnett. Dr. Dewitt Hamrick, JOURNAL MSMA *associate editor, who was class poet, attended and prepared a poem in honor of the occasion. From the left are, front, Dr. R. A. McLemore, Mississippi College president; Governor Barnett, and John Gillon, class vice-president; back row, Dr. Hamrick, Dr. Whitley Emerson, and Dr. Wyatt R. Hunter, class prophet. (Photo courtesy of Perry Nations, Jackson Daily News.)*

Estimate 1 of 15 Teenagers May Become Alcoholic

It is estimated that one out of every fifteen teenagers is likely to become an alcoholic, according to Dr. Marvin A. Block, Buffalo, N. Y., a leading authority on the subject.

"Unless there is broadening of our educational program, greater action, and more understanding of the subject of alcoholism, it is estimated that about 6 per cent of teenagers may become alcoholics sometime in the future," Dr. Block said in an interview in the June *Today's Health* magazine published by the American Medical Association.

"Improvement of the home environment, understanding of the factors which contribute to alcoholism, suitable guidance, and proper education can materially modify this estimate," he said. "A person's inherent characteristics may play a part in his susceptibility to alcoholism, but these can also be considerably modified."

The primary responsibility for education about alcohol rests in the home, Dr. Block said, and the best way to teach youth is by example.

In conclusion, Dr. Block said:

"We should teach our young people that not to drink does not affect them socially, that alcohol is not a necessity of life, that some people may drink if they wish, but that to others it will bring harm. If we could teach people that the real sophisticate never drinks excessively, and that to do so means social ostracism, we'd find less and less alcoholism."

Board of Health Receives Auto Safety Award

The State Board of Health has been awarded an Auto Safety Honor Award in recognition of outstanding accident prevention activities in 1961.

The award was made by the *Medical Tribune,* a national medical newspaper that promotes accident prevention.

In nominating the State Board of Health for the award, Freeman L. Evans, executive director of the Mississippi Safety Council said: "In conducting a Seat Belt Campaign during 1961, the State Board of Health became the first motivating influence in the state to promote the use of seat belts as a means of reducing highway fatalities and injuries. As the year progressed, the movement gained great momentum with far-reaching results."



Dr. A. L. Gray, state health officer, is shown with Freeman L. Evans, executive director of the Mississippi Safety Council, displaying an award presented by the Medical Tribune "for outstanding achievement in reducing deaths and injuries," through an educational auto seat belt campaign carried on in 1961.

Today, over 80 per cent of the state's public health workers who use automobiles in their work have installed seat belts, according to Dr. A. L. Gray, state health officer.

"Our Seat Belt Campaign," said Dr. Gray, "has not only made driving safer for our workers, but has served as an example to other agencies and the general public in the use of this accident prevention device."

In addition to carrying on an intensive educational campaign, the State Board of Health assisted in promoting the recent legislation requiring that seat belts be installed in all 1963 and subsequent models of automobiles bought, sold, or traded by or to Mississippi residents.

Institute's Services Now Available to Physicians

The Institute for Scientific Information is now making its services available to physicians, according to Marvin Schiller, associate director. The Institute, which was organized to help the scientist keep up with research developments, has a fourfold program of dissemination and retrieval, screening coding, and indexing, systems design, and research and development.

In its program of dissemination, the organization puts out four publications. Three of these are

in the Current Contents series and include the Life Sciences Edition, the Space and Physical Sciences Edition, and the Social Sciences Edition. Each of these editions provides ready reference to the recognized publications in its field and makes it possible for the scientist to select, in a relatively few minutes, the papers he will want to read in their entirety.

The fourth publication, *Index Chemicus,* is a twice monthly publication primarily reporting new chemical information. Original journal articles are abstracted "graphically" rather than verbally. This approach enables the individual chemist to quickly visualize molecular structures.

In addition to its publications, the Institute provides copies of articles not available to scientists in their local libraries through its Original Article Tear Sheet Service. The organization also attempts to aid effective intercommunication of scientists and the authors of individual articles.

In each Current Contents, Life Sciences Edition, a comprehensive directory of authors is published.

Current projects of the Institute include

—a citation index to aid the scientist in following advances and modifications in particular theories or techniques,

—machine searching methods providing the most efficient programs of filing and retrieving scientific information,

—Miniprint, a copying process which saves printing costs and storage space,

—selective facsimile devices to make it possible to copy sentences, phrases or even single words,

—several new techniques to make scientific information more quickly available to scientists.

Physicians interested in the program should write the Institute at 33 South Seventeen Street, Philadelphia 3, Pa., for review copies of the publications and a brochure on services.

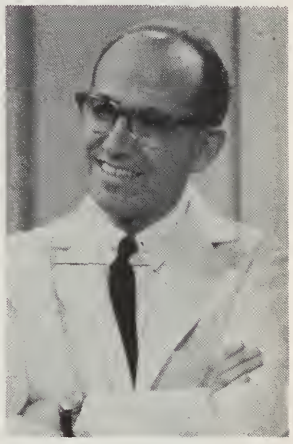
Lotterhos Addresses Retired Persons Group

The chairman of MSMA's Council on Legislation told a state organization of retired persons that the King-Anderson bill was a deception and a hoax. Dr. William E. Lotterhos, Jackson, appeared as featured speaker at a recent meeting of the Mississippi Chapter of the National Association of Civil Service Retirement Associations.

Dr. Lotterhos analyzed the legislation, discussing the reasons for medical organization's opposition to the bill. The chapter meeting was conducted at Jackson's Livingston Park Community House. More than 50 members were present.

Construction Begins On Salk Institute

Construction has begun on the $15 million Salk Institute at San Diego, Calif., an independently endowed basic research agency devoted to advancement and unification of knowledge for man's health and well-being. It will be headed by Dr. Jonas Salk, Pittsburgh virologist and noted discoverer of the poliomyelitis vaccine.



Dr. Salk

Begun as an idea in 1959, the institute has had the support of the National Foundation. The site consists of 27 acres valued at $1 million overlooking the Pacific Ocean on Torrey Pines Mesa in the La Jolla area of San Diego. The architect, Louis I. Kahn of Philadelphia plans a three group building complex of 400,000 square feet providing for laboratories, a meeting house, and quarters for visiting scientists.

When the institute is opened in 1963, there will be approximately 20 senior fellows and a staff of 400 including technicians, administrative personnel, animal caretakers, maintenance workers, and others. Scientists will include physicians, biologists, physicists, mathematicians, and scientific philosophers. Dr. Salk says that "discussion, argument, and exchange among these disciplines is basic to the entire concept of the institute."

Those heading the massive research effort will be scientists who have made major contributions



The Salk Institute complex, portrayed by this architect's model, will feature a meeting house, foreground, the laboratory group, rear foreground, and quarters for visiting scientific fellows, right.

in the fields of medicine and biology. Research will be aimed at discoveries in the factors and circumstances conducive to fulfillment of man's biological potential through studies in fundamental biology and cause, prevention, and cure of disease.

In addition to supporting original construction, the National Foundation has pledged the institute $1 million annually for ten years for purposes of establishing an endowment. Other construction funds are being sought through public subscription campaigns.

The 15 trustees of the institute include three physicians, Drs. Salk, Leo H. Bartemeier, and Warren Weaver. Officers of the governing board are mostly from business and industry.

Alcohol Study School Set for Aug. 5-10

The second Southeastern School of Alcohol Studies will be held Aug. 5-10 at Millsaps College. The school will be sponsored by official state alcoholism programs in Alabama, Georgia, Florida, Mississippi, South Carolina and Tennessee and the Regional office of the U. S. Public Health Service located in Atlanta.

Among the physician-speakers for the meeting are Dr. William E. Lotterhos, Jackson general practitioner; Dr. Vernelle Fox, medical director, Georgian Clinic and Rehabilitation Center for Alcoholics; Dr. C. Brooks Henderson, clinical director, Florida Alcoholic Rehabilitation Program, and Dr. William L. Wright, assistant state health officer, director, Bureau of Local Health Service, Florida State Board of Health.

Registration for the school is $25.00. The sponsoring state agencies will furnish staff members to serve as the school's faculty augmented by guest speakers.

Board of Health Begins Phenylketonuria Program

The State Board of Health has begun organization of a phenylketonuria detection program, according to Dr. Frank M. Wiygul of the Maternal and Child Health Division.

Phenylketonuria is a hereditary metabolic disease which almost always produces brain damage and mental retardation in affected children. However, it is considered treatable by a diet regimen if discovered before the patient is three months of age.

At its 94th annual session, MSMA's House of Delegates observed that Mississippi did not have a phenylketonuria detection program and recommended that one be organized by the State Board of Health to be implemented by private physicians and hospitals.

Dr. Wiygul said that arrangements have been made to test children in special education classes through the county health departments as a case finding measure. This program is being carried out with the cooperation of the Special Education Division of the State Board of Education, he said.

In addition, Dr. Wiygul said, a register and file of cases has been set up. There are about 15 or 16 known cases in the state at this time.

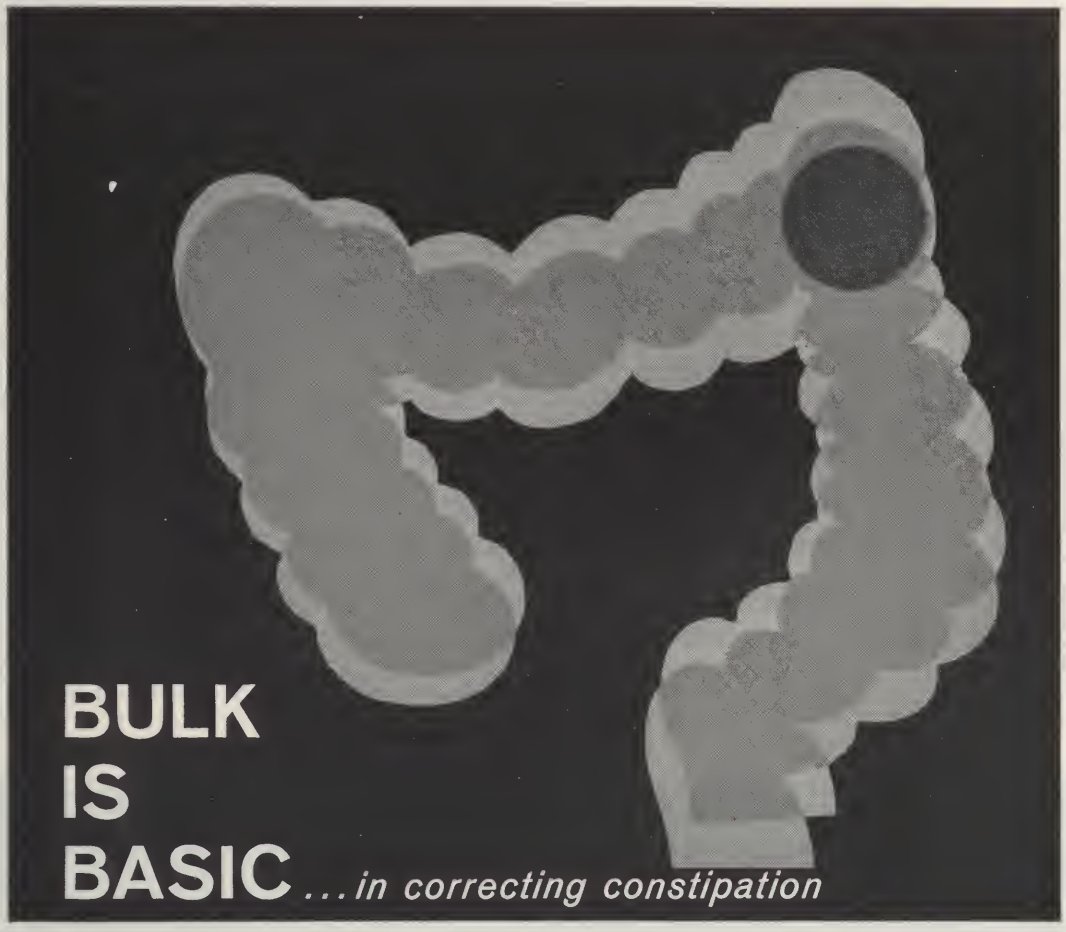
Dr. Wiygul explained that none of the tests now available was feasible for use during the newborn child's hospital stay as they are all based on the discovery of phenylpyruvic acid in the urine which is not detectable until the age of four weeks. A new method, the Gutherie test, is now undergoing extensive clinical investigation, Dr. Wiygul said, which will be usable in hospital nurseries. The Gutherie method, a bacterial inhibition screening test, requires only one drop of blood from either a finger or heel stick. It is convenient and inexpensive, he said.

Dr. Wiygul recommended that physicians test all white infants coming under their care by one of the four available methods: (1) ferric chloride test, (2) filter paper screening test, (3) Phenistix (Ames) test, and (4) dinitrophenyl hydrazine test. He explained that the occurrence of the disease among Negroes is exceedingly rare and virtually immeasurable statistically.

Phenylketonuria is characterized by a defect in the enzyme system which converts the amino acid phenylalanine to tyrosine. Since phenylalanine constitutes about 5 per cent of most protein foods, a rich concentration is found in the blood, spinal fluid, and urine of affected children.

In regard to the inheritance of phenylketonuria, Dr. Harvey Garrison, Jr., president of the State Board of Health said, "the defective gene producing phenylketonuria is inherited as a Mendelian recessive trait. Where children are victims of phenylketonuria, the father and the mother must both carry the gene causing the disease. In a family with four children from such a union, one child could be expected to be normal, two children to be carriers of the gene, and one to be affected with the disease.

Physicians interested in securing literature on phenylketonuria may write Dr. Wiygul, Maternal and Child Health Division, State Board of Health.



METAMUCIL®

BRAND OF PSYLLIUM HYDROPHILIC MUCILLOID

STRENGTHENS THE COLONIC REFLEX

"The natural stimulus to peristalsis[1]... is the distension of the intestinal wall...."

The effectiveness of Metamucil in correcting constipation is a direct result of its physiologic action.

The stimulus which initiates the defecatory reflex is the fecal mass in the lower sigmoid colon and rectum. Metamucil provides that mass as a bland, nonirritating, easily compressed bulk, similar in consistency to the normal protective mucus of the colon. Taken regularly, Metamucil tends to correct the insensitive reflex of a bowel abused by laxatives and to restore the natural responsiveness to the urge to stool.

Metamucil is available as Metamucil powder in 4, 8 and 16-oz. containers and as lemon-flavored Instant Mix Metamucil in cartons of 16 and 30 single-dose packets.

1. Best, C. H., and Taylor, N. B.: The Physiological Basis of Medical Practice, ed. 6, Baltimore, The Williams & Wilkins Company, 1955, p. 578.

G. D. SEARLE & CO.

CHICAGO 80, ILLINOIS

Research in the Service of Medicine

Health Benefits Up 11 Per Cent over Last Year

Health insurance benefit payments by insurance companies during the first three months of 1962 totaled $947 million, according to the Health Insurance Institute.

The Institute said insurance companies paid this amount in health insurance benefits to the public through the end of March, and said the sum was 10.9 per cent higher than the $854 million distributed in the first three months of 1961.

In all of 1961, an estimated total of $6.3 billion in benefits were paid by insurance companies, Blue Cross-Blue Shield, and other health care plans. Nearly $3.4 billion of these benefits came from insurance companies, including some $855 million to persons covered by policies which replace income lost through disability.

During 1961, health insurance benefit payments by insurance companies averaged out to $9.5 million a day. For the first quarter of 1962, these benefits averaged out to more than $10.5 million a day, an increase of $1 million a day in benefits.

Benefit payments this year by insurance companies are running ahead of last year for all five types of health insurance—hospital expense, surgical expense, regular medical expense, major medical expense, and loss of income.

In the first three months of 1962, $374 million in benefits were paid by insurance companies to persons covered by hospital expense policies, up more than 11 per cent over the $336 million paid out in the first quarter of 1961.

Surgical expense insurance accounted for $117 million in benefits from insurance companies, a six per cent increase over the $110 million paid out in 1961's first quarter.

Benefits paid to persons covered by regular medical expense policies, which help pay for the cost of medical treatment and care other than surgery, increased six per cent, from $32 million to $34 million.

Major medical expense insurance, which provides benefits ranging from $5,000 to $15,000 or higher to help offset the cost of serious illness, showed the greatest increase in benefits. Major medical benefits climbed 24 per cent on an increase from $138 million to $171 million in 1962's first three months. Benefits under this type

1 2 3 4
clinical studies repeat...

ARLIDIN IMPROVES HEARING[1]
ARLIDIN IMPROVES HEARING[2]
ARLIDIN IMPROVES HEARING[3]
ARLIDIN IMPROVES HEARING[4]

Arlidin is available in 6 mg. scored tablets, and 5 mg. per cc. parenteral solution.
See PDR for packaging.
Protected by U.S. Patent Numbers: 2,661,372 and 2,661;373.

1 "significant hearing improvement" occurred with Arlidin in 32 of 75 patients with recent onset hearing impairment due to labyrinthine artery ischemia.
Rubin, W. and Anderson, J. R.: Angiology 9:256, 1958.

3 Arlidin "appears to be one of the most satisfactory [vasodilators], having the advantages of minimal side effects, being well tolerated and possessing a sustained action" in improving circulation of the inner ear.
Seymour, J. C.: Laryngology & Otology 74:133, 1960.

of policy pay for virtually all medical services, including prescribed medicines, medical appliances and physicians' services, in addition to hospital and surgical care.

Loss of income payments, including accidental death and dismemberment benefits, amounted to $251 million in the first three months of this year, up more than five per cent over the $238 million of the same period in 1961.

One Million Workers Out Each June Day

Although June is the healthiest month of the year when it comes to persons being absent from work due to illness, on an average day last month about one million workers were at home sick, according to the Health Insurance Institute.

On an average day June, 1961, 1.56 per cent of the working civilian population, or 1,076,000 persons, were sick and not on the job. Of this number, 807,000 were absent a work week or more, and 269,000 were absent less than a week. The Institute said this was the lowest monthly figure for 1961.

In six of the last seven years June has had the lowest monthly figure in percentage of working civilians absent from their jobs a week or more because of illness, according to data from the U. S. Department of Labor. Only in 1958, when June's percentage was 1.16 to 1.13 for August, was June not lowest in the years from 1955 through 1961.

On the other end of the scale, February usually has the most workers out because of illness. On an average day in February, 1961, 2.14 per cent of civilian workers, or 1,385,000 persons, were out sick, and 997,000 of them for a week or more. This February the percentage was 2.65 when 1,742,000 workers were out.

The Institute pointed out that much of the financial loss caused by this absence from work is absorbed through insuring mechanisms.

DISTAFF DIAGNOSIS

"How is your wife doing with her driving lessons?" the doctor's friend asked.

"She was getting along fine," said the doctor pensively, "but yesterday, she took a turn for the worse."

vascular insufficiency
of the labyrinth is an important
etiologic factor in sudden
perceptive deafness . . .
"vasodilators [Arlidin] are
of considerable value."

Wilmot, T. J. and Seymour, J. C.:
Lancet 1:1098, 1960.

early cases of sudden
perceptive deafness should be treated
by immediate stellate block
"supplemented by the most effective
vasodilator drug [Arlidin] . . .
energetic measures to
retain blood supply to the inner
ear are imperative."

Wilmot, T. J.: J. Laryngology &
Otology 73:466, 1959.

in impaired hearing,
tinnitus, vertigo . . .
when due to ischemia of the inner ear . . .

arlidin®
brand of nylidrin hydrochloride N.F.

Clinical benefit in approximately 50% of cases of recent onset hearing loss treated with adequate vasodilator and other supportive therapy is also reported by Sheehy.

Sheehy, J. L.: Laryngoscope 70:885, 1960.

IMPORTANT: Before prescribing ARLIDIN the physician should be thoroughly familiar with general directions for its use including indications, dosage, precautions and contraindication. Write for complete detailed literature.

u. s. vitamin & pharmaceutical corporation
Arlington-Funk Labs., div. • 800 Second Ave., New York 17, N. Y.



Trocinate®

Brand of Thiphenamil HCl.

A MUSCULOTROPIC ANTISPASMODIC WITH NO APPRECIABLE ANTICHOLINERGIC ACTION

Trocinate relieves spasms of the lower bowel and the genito-urinary tract by direct action on the contractile mechanism of smooth muscles. The absence of any appreciable action on the autonomic nervous system eliminates the usual side-effects. It may be safely used in glaucoma.

USUAL DOSAGE: 2 Tablets, 4 times a day. Maintenance dosage is frequently lower.

Available in PINK sugar-coated tablets, 100 mgs. and in GREEN sugar-coated tablets of 100 mgs. with 16 mgs. of phenobarbital.



Dispensed in bottles of 40 and 250 tablets.

WM. P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA

Manufacturers of ethical pharmaceuticals since 1856



Emotional control regained...a family restored... thanks to a doctor and 'Thorazine'

During the past seven years, 'Thorazine' has become the treatment of choice for moderate to severe mental and emotional disturbances because it is:

- specific enough to relieve underlying fear and apprehension
- profound enough to control hyperactivity and excitement
- flexible enough so that in severe cases dosage may be raised to two or three times the recommended starting level

Experience in over 14,000,000 Americans confirms the fact that, in most patients, the potential benefits of 'Thorazine' far outweigh its possible undesirable effects.

Smith Kline & French Laboratories SK&F

Thorazine®

brand of chlorpromazine

A fundamental drug
in both office and hospital practice

Posed by professional models.

For prescribing information, please see PDR or SK&F literature.



for more satisfactory relief of anxiety-aggravated pain

PHENAPHEN®

- More satisfactory than "the usual analgesic compounds" for relieving pain and anxiety.[1]
- More effective than a standard A.P.C. preparation for relief of moderate to severe pain.[2]

Each PHENAPHEN *capsule contains:*

Acetylsalicylic acid (2½ gr.)	162 mg.
Phenacetin (3 gr.)	194 mg.
Phenobarbital (¼ gr.)	16.2 mg.
Hyoscyamine sulfate	0.031 mg.

Also available:

PHENAPHEN with CODEINE PHOSPHATE ¼ GR. (16.2 mg.) Phenaphen No. 2

PHENAPHEN with CODEINE PHOSPHATE ½ GR. (32.4 mg.) Phenaphen No. 3

PHENAPHEN with CODEINE PHOSPHATE 1 GR. (64.8 mg.) Phenaphen No. 4

Bottles of 100 and 500 capsules.

1. Meyers, G. B.: Ind. Med. & Surg. 26:3, 1957. 2. Murray, R. J.: N. Y. St. J. Med. 53:1867, 1953.

A. H. ROBINS CO., INC., RICHMOND 20, VIRGINIA

Making today's medicines with integrity...seeking tomorrow's with persistence.

Robins



Diet patients welcome appetizing dishes like these.

How to help your patient stick to a bland diet

The secret ingredient in a successful diet is acceptance. How much easier it is for the patient to stay with a bland diet if it includes an appealing variety of dishes like these that please the eye as well as the palate.

Pictured is an extremely appetizing and well-rounded bland diet meal: tender broiled meat patties made with crushed corn flakes and water, flavored with salt and a touch of thyme, tender peas and carrots mixed, and buttered baked potato.

For color there's molded gelatin salad and a pretty-as-a-picture dessert: lime gelatin whipped with applesauce and topped with custard sauce.

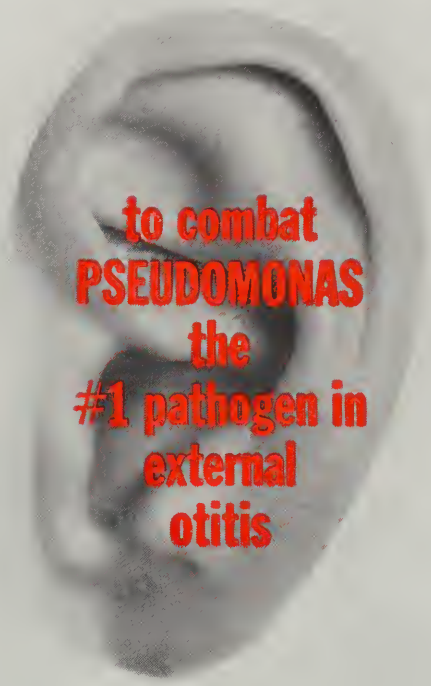
United States Brewers Association, Inc.

For reprints of this and 11 other diet menus, write us at 535 Fifth Avenue, N.Y. 17, N.Y.



A glass of beer can add zest to a patient's diet

pH 4.3
(Average of American Beers)



'CORTISPORIN'®

brand

OTIC DROPS (sterile)

the #1 therapy for inflamed, infected ears

Because it provides Polymyxin B for the eradication of Pseudomonas, the prime cause of external otitis, 'Cortisporin' is the logical choice of treatment for inflamed, infected ears. Polymyxin B is the antibiotic specific for *Pseudomonas aeruginosa* infections, and is, for this pathogen, the standard of effectiveness against which other antibacterials are measured.

- Anti-inflammatory
- Antipruritic
- Antibacterial



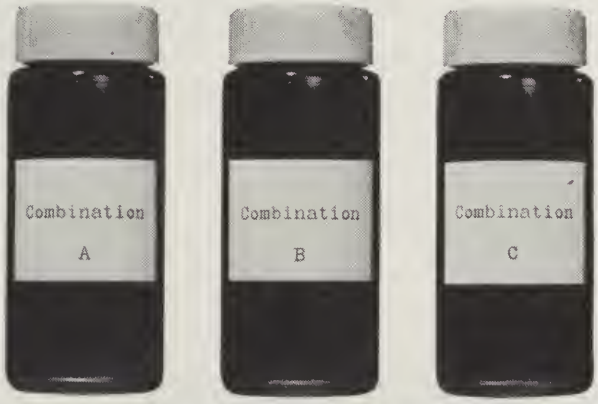
Each cc. contains:

'Aerosporin'® brand Polymyxin B sulfate	10,000 units
Neomycin Sulfate (Equivalent to 3.5 mg. Neomycin Base)	5 mg.
Hydrocortisone	10 mg. (1%)

Bottles of 5 cc. with sterile dropper.

Literature available on request.

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N. Y.



These leading antihypertensive combinations are practically all alike.



This one is different...

because Ser-Ap-Es offers a unique benefit which makes blood pressure control more certain: the central and peripheral antihypertensive actions of Apresoline. By adding Apresoline to the regimens of their patients, Dupler *et al*[1] succeeded in bringing blood pressure down after rauwolfia-diuretic therapy failed. Using Ser-Ap-Es, Hobbs[2] reduced average blood pressure from 175/100 mm. Hg to 148/85 mm. Hg in 74 hypertensive patients. Side effects? Rarely a problem with Ser-Ap-Es because effective dosage is low.

SUPPLIED: SER-AP-ES Tablets, each containing 0.1 mg. SERPASIL® (reserpine CIBA), 25 mg. APRESOLINE® hydrochloride (hydralazine hydrochloride CIBA), and 15 mg. ESIDRIX® (hydrochlorothiazide CIBA). For complete information about Ser-Ap-Es (including dosage, cautions, and side effects), see current Physicians' Desk Reference or write CIBA.

1. Dupler, D.A., Greenwood, R.J., and Connell, J.T.: J.A.M.A. 174:123 (Sept. 10) 1960.
2. Hobbs, L.F.: To be published. 2/3026MB

CIBA
SUMMIT, N. J.



The Milibis® vaginal suppos
is soft and pliant as a tampon. It o
proved therapeutic action* in an except
vehicle. The suppository is clean, odorless
non-staining. The course of treatment of vag
(trichomonal, bacterial and monilial) with Milibis is s
—only 10 suppositories in most cases. Milibis® vaginal supposit
are supplied in boxes of 10 with applic

Winthrop LABORATORIES
New York 18, N. Y.

*97 per cent effective in a study of 564 cases;
94 per cent effective in a study of 510 cases.

Milibis (brand of glycob



Sustained tranquilization without autonomic side reactions

- SAFE, CONTINUOUS RELIEF of anxiety and tension for 12 hours with just one capsule—without causing autonomic side reactions and without impairing mental acuity, motor control or normal behavior.
- ECONOMICAL for the patient—daily cost is only a dime or so more than for barbiturates.

Meprospan®-400

400 mg. meprobamate (Miltown®) sustained-release capsules

Usual dosage: One capsule at breakfast lasts all day; one capsule with evening meal lasts all night.

Available: *Meprospan-400,* each blue-topped capsule contains 400 mg. Miltown (meprobamate).
Meprospan-200, each yellow-topped capsule contains 200 mg. Miltown (meprobamate). Both potencies in bottles of 30.

WALLACE LABORATORIES / *Cranbury, N. J.*

CME-6630



in arthritis: vitamins are therapy

In dealing with the chronic stress of arthritis the physician often faces the problem of nutritional imbalance. High potency B and C supplementation is needed for rapid replenishment of tissue stores of these water-soluble vitamins. STRESSCAPS meet this need and help support the natural metabolic defenses in the disease. Supplied in decorative "reminder" jars of 30 and 100.

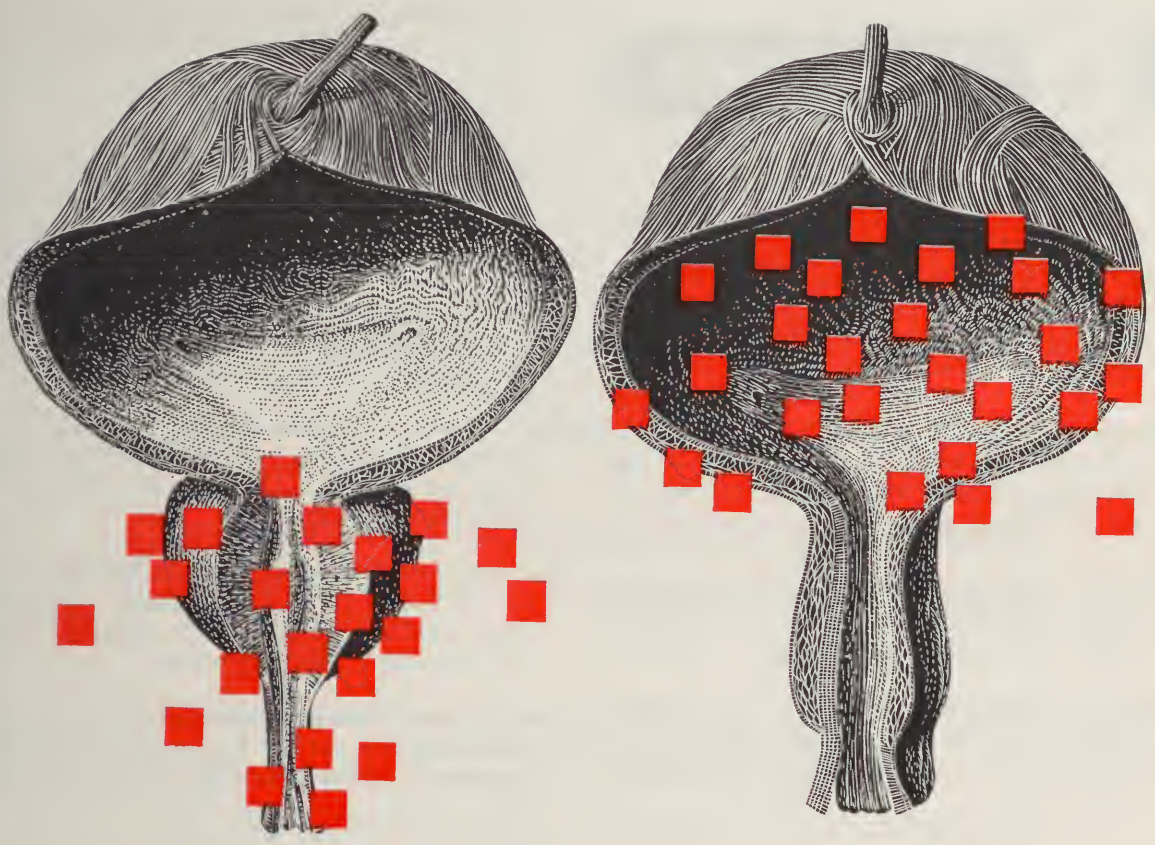
Each capsule contains:	
Vitamin B_1 (Thiamine Mononitrate)	10 mg
Vitamin B_2 (Riboflavin)	10 mg
Niacinamide	100 mg
Vitamin C (Ascorbic Acid)	300 mg
Vitamin B_6 (Pyridoxine HCl)	2 mg
Vitamin B_{12} Crystalline	4 mcg
Calcium Pantothenate	20 mg

Recommended intake: Adults, 1 capsule da
or as directed by physician, for the treatme
of vitamin deficiencies.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

STRESSCAPS®

Stress Formula Vitamins Lederle



Serenium

Squibb Ethoxazene (Diamino-Ethoxy-Azobenzene Hydrochloride)

Quickly eliminates pain and burning in the lower urinary tract

At real savings to your patients

Serenium provides **quick, localized analgesic action** in acute and chronic urinary tract infections with **only 1 tablet** t.i.d. Your patient is assured of the prompt action of Serenium by the harmless orange-red color of the urine; and he will feel good about the **low prescription cost,** too.

Supply: Bottles of 50 and 500 chocolate-covered tablets. Each tablet contains 0.1 Gm. of Squibb Ethoxazene. For full information see your Squibb Product Reference or Product Brief.

Serenium® is a Squibb trademark

SQUIBB *Squibb Quality—the Priceless Ingredient*

SQUIBB DIVISION Olin

MEETINGS

NATIONAL AND REGIONAL

American Medical Association, Clinical Meeting, Nov. 25-28, 1962, Los Angeles, Calif. F. J. L. Blasingame, Executive Vice President, 535 N. Dearborn St., Chicago 10, Ill.

American Academy of General Practice, April 1-4, 1963, Chicago, Ill. Mr. Mac F. Cahal, Executive Director, Volker Blvd., at Brookside, Kansas City 12, Mo.

American College of Surgeons, Clinical Congress, Oct. 15-19, 1962, Atlantic City. William E. Adams, 40 E. Erie St., Chicago 11, Secretary.

Southern Medical Association, Nov. 12-15, 1962, Miami Beach, Fla. Mr. Robert F. Butts, Executive Director, 2601 Highland Ave., Birmingham 5, Ala.

STATE AND LOCAL

Mississippi State Medical Association, May 13-16, 1963, Biloxi. Mr. Rowland B. Kennedy, Executive Secretary, 735 Riverside Drive, Jackson.

Mississippi Chapter, American College of Surgeons, Nov. 16, 1962, Heidelberg Hotel, Jackson. Edward C. Hamilton, 14th St. and 25th Ave., Gulfport, Secretary.

Amite-Wilkinson Counties Medical Society, First Tuesday March, June, September, December. S. E. Field, Centreville, Secretary.

Central Medical Society, First Tuesday Monthly, 6:30 p.m., Robert E. Lee Hotel, Jackson. George E. Gillespie, 514-A East Woodrow Wilson Drive, Jackson, Secretary.

Claiborne County Medical Society. D. M. Segrest, Port Gibson, Secretary.

Clarksdale and Six Counties Medical Society, Second Wednesday March and November, 2:00 p.m., Clarksdale. Whitman B. Johnson, Jr., 645 Evelyn Ave., Clarksdale, Secretary.

Coast Counties Medical Society, First Wednesday March, June, September, and November. Charles N. Floyd, 1412-23rd Ave., Gulfport, Secretary.

Delta Medical Society, Second Wednesday April and October. Howard A. Nelson, 308 Fulton St., Greenwood, Secretary.

DeSoto County Medical Society, Second Thursday January, April, July, and October, 1:00 p.m., Hernando Motel Cafe, Hernando. L. L. Minor, Route 9, Memphis 9, Tenn., Secretary.

East Mississippi Medical Society, First Tuesday February, April, June, August, October, and December. Hugh S. Rayner, Jr., 1216-21st Ave., Meridian, Secretary.

Homochitto Valley Medical Society, Fourth Tuesday Monthly, 7:30 p.m., Natchez Country Club, Natchez. W. T. Colbert, Natchez General Hospital, Natchez, Secretary.

North Central District Medical Society, Second Wednesday March and September. Robert B. Townes, Jr., 1196 Mound St., Grenada, Secretary.

Northeast Mississippi Medical Society, Second Tuesday March, June, September, and December, Tupelo. Thomas W. Wesson, 421 Main St., Tupelo, Secretary.

North Mississippi Medical Society, First Thursday January, April, and October, Oxford. Marcus E. Morrison, 512 Van Buren Ave., Oxford, Secretary.

Pearl River County Medical Society, Second Monday March, June, September, and December. Samuel O. Massey, Jr., 220 E. Canal St., Picayune, Secretary.

South Mississippi Medical Society, Second Thursday March, June, September, and December. Thomas F. Puckett, 715 Arledge St., Hattiesburg, Secretary.

Tri-County Medical Society, Second Tuesday March, June, September, and December. A. V. Beacham, Magnolia, Secretary.

West Mississippi Medical Society, Second Tuesday January, April, July, and October, 7:00 p.m., Old Southern Tea Room, Vicksburg. Tom H. Mitchell, The Street Clinic, Vicksburg, Secretary.

ENDOCRINE AND PHARMACEUTICAL PRODUCTS OF QUALITY

Organon

An important announcement to physicians who prescribe corticosteroids

Organon's new technical process now makes one of the newer, most highly potent and well tolerated corticosteroids available at greatly reduced cost to your patients with allergic, arthritic or other inflammatory conditions.

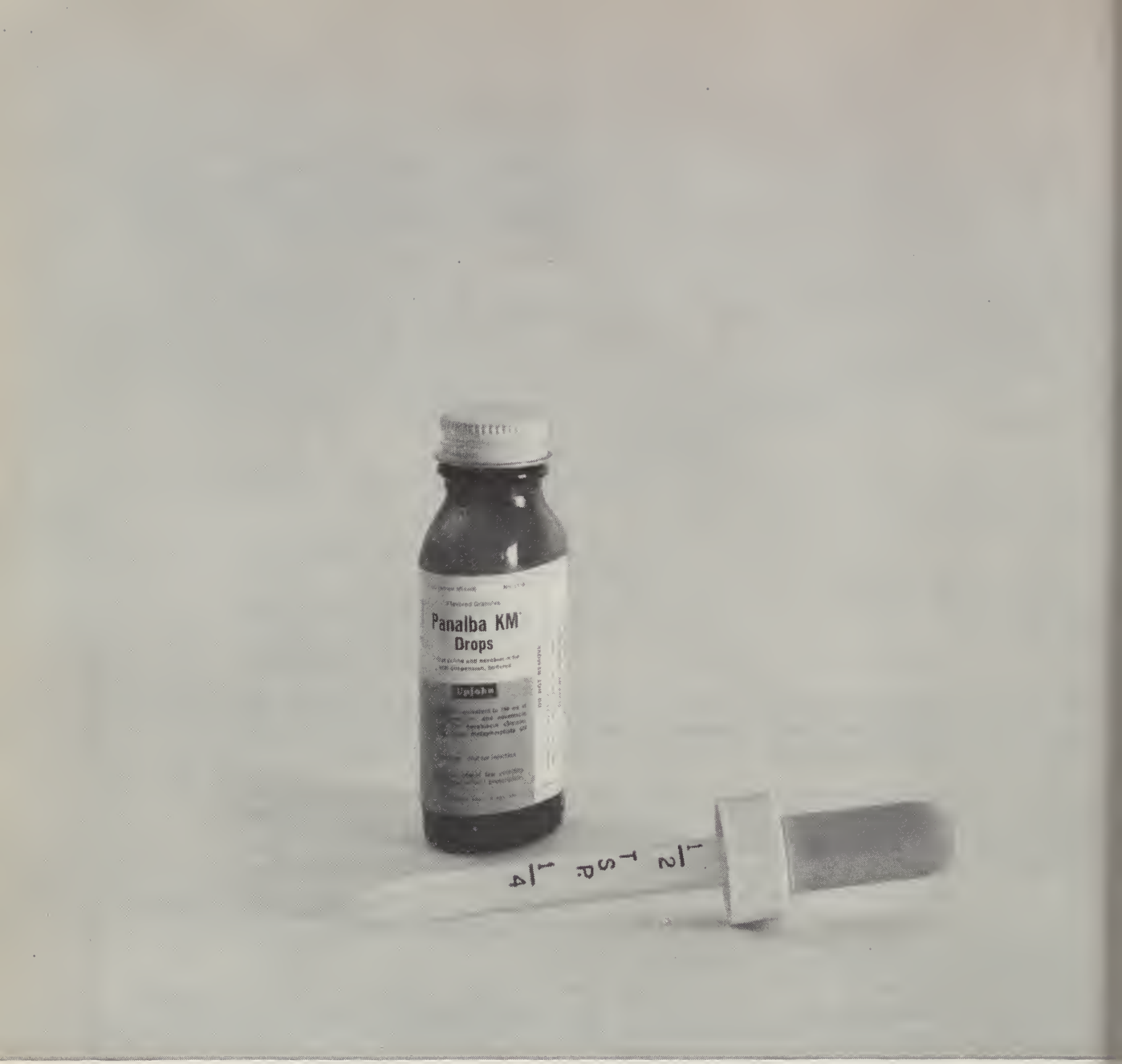
This new product is being marketed under the trade name of HEXADROL, brand of dexamethasone 'Organon'. HEXADROL is now being offered to your pharmacist at a price which should make it available to your patients at a cost well within the price range of older generically prescribed corticosteroids. It is supplied as 0.75 mg. white scored tablets, in bottles of 100.

If you have been prescribing the older corticosteroids— such as prednisone, prednisolone, hydrocortisone or cortisone, and have hesitated to prescribe the newer corticosteroids because of economic consideration for your patients, you can now secure all of the clinical advantages of dexamethasone at approximately the same prescription expense. Mg. for mg., HEXADROL is approximately 6 times more potent than triamcinolone or methylprednisolone...8 times more potent than prednisone or prednisolone...28 times more potent than hydrocortisone...and 35 times more potent than cortisone.

If you are now prescribing the newer corticosteroids— such as triamcinolone, betamethasone, paramethasone or another brand of dexamethasone, because of reduced risk of sodium and fluid retention, potassium depletion, or disturbance of glucose metabolism—you can obtain all of these benefits with HEXADROL, at marked savings—yet with complete assurance of unsurpassed quality and therapeutic effect.

For complete information concerning HEXADROL— including indications, dosage, precautions and side effects—or if you would like a trial supply, ask your Organon Representative, or write to: Director, Professional Services, Organon Inc., West Orange, N. J.

'Organon'—your professional assurance of quality
Hexadrol®—your patient's assurance of economy!



Liquid asset

Now that we have added a new liquid-dosage form to our Panalba* family, you may prefer to begin treatment with Panalba KM* Drops when dealing with bacterial infections of unknown etiology in infants and children. From the outset, pending laboratory determinations, your treatment is broadened in antibacterial coverage because of the simultaneous administration of two antibiotics that complement each other. They were carefully chosen for this purpose.

Panalba combines tetracycline (selected for its breadth of coverage) and novobiocin (selected for its unique effectiveness against staph). That is why, in most bacterial infections of unknown etiology, Panalba offers excellent chances for therapeutic success—and why it should be your antibiotic of *first* resort.

Supplied: Flavored granules for suspension, in 30 cc. bottles with dropper-stopper calibrated in ¼ and ½ teaspoonful graduations. After mixing and shaking with 25 cc. water, each 5 cc. teaspoonful of suspension will contain:
Panmycin* (tetracycline) equivalent to tetracycline hydrochloride .... 125 mg.
Albamycin* (as novobiocin calcium) ..... 62.5 mg.
Potassium metaphosphate ... 100 mg.
Usual pediatric dosage:
½ teaspoonful per 7½ to 10 pounds of body weight per day, administered in two to four equally divided doses.
(Reminder advertisement. Please see package insert for detailed product information.)

*TRADEMARK, REG. U.S. PAT. OFF.
COPYRIGHT 1962, THE UPJOHN COMPANY

THE UPJOHN COMPANY
KALAMAZOO, MICHIGAN

Upjohn

INDEX TO ADVERTISERS

In accepting advertising for publication, the JOURNAL has exercised reasonable precaution to insure that only reputable, factual advertisements are included. Nevertheless, claims made by advertisers in behalf of goods, services, and medicinal preparations, apparatus or physical appliances are understood to be those of the advertiser. Neither sanction nor endorsement of such is warranted, stated, or implied by the association.

	Adv. page
Ames Company	41
Appalachian Hall	40
Blue Cross	17
Burroughs Wellcome	12, 30
Ciba Laboratories	31
Endo Laboratories	16
Fessler Company	9
First Federal of Jackson	11
General Electric	18
General Mills	20
Glenbrook Laboratories	13
Hill Crest Sanitarium	40
Kay Surgical	39
Lederle Laboratories	10, 34
Eli Lilly	front cover, 22
P. Lorillard	15
Mission Pharmacal Company	9
Organon, Inc.	37
Parke, Davis and Company	2, 3
William P. Poythress	26
A. H. Robins	insert, 19, 28
Roche Laboratories	back cover
Schering Corporation	21
G. D. Searle	23
Smith, Kline & French	27
E. R. Squibb	35
J. S. Brewers	29
J. S. Vitamin	24, 25
Upjohn Company	6, 7, 38
Wallace	8, 33
Winthrop	4, 14, 32

Articles for Publication

Manuscripts should be typewritten, double spaced on one side of the paper. Tables, charts, and tabulations should be submitted on separate sheets but their position in the text should be indicated. Authors are encouraged to limit bibliographies to 10 references, written in conformation to style utilized in scientific publications of the American Medical Association. Articles are accepted for publication on the condition that they have not been previously published and are contributed solely to this JOURNAL.

A thesis summary of 75 to 100 words must accompany each manuscript separately from the text. Figures and drawings are acceptable when prepared with black ink on white paper. Photographs for illustrations should be unmounted, untrimmed, glossy prints and all such material must be identified. No charges are made to authors for illustration engravings not exceeding four column inches per printed page.

Reprints may be obtained at cost from the association. The right is reserved to decline any manuscript for publication. Ordinarily, manuscripts submitted will be acknowledged whether published or not.

Burdick



DIRECTED, DEEP-TISSUE HEATING WITH THE MW-1 MICROWAVE UNIT

The MW-1's simplicity of operation and ease of electrode application have contributed much to the popularity of microwave diathermy. Microwave radiations can be reflected, focused and directed. Treatment intensities may be preset.

Write us for descriptive literature and complete price information.

KAY SURGICAL INC.

663 North State St. • Jackson, Miss.



Out-Patient Clinic and Offices

HILL CREST SANITARIUM

Established in 1925

FOR NERVOUS AND MENTAL DISEASES
AND ADDICTION PROBLEMS

James A. Becton, M.D.
P. O. Box 2896, Woodlawn Station, Birmingham 6, Ala.

James Keen Ward, M.D.
Phone 595-1151 and 595-1152

APPALACHIAN HALL

ESTABLISHED — 1916

ASHEVILLE NORTH CAROLINA



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.

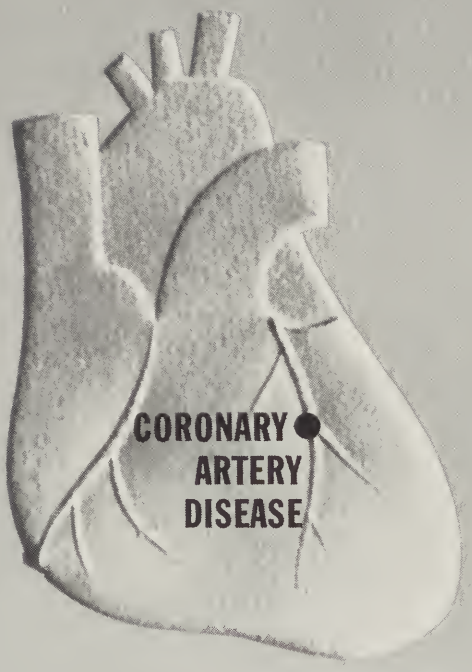
Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.

Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

WM. RAY GRIFFIN, JR., M.D.
ROBERT A. GRIFFIN, M.D.

MARK A. GRIFFIN, SR., M.D.
MARK A. GRIFFIN, JR., M.D.

For rates and further information, write: APPALACHIAN HALL, ASHEVILLE, N. C.



• "...now the leading cause of death in diabetic patients."[1]

Diseases of the cardiovascular-renal system account for about three-fourths of deaths among diabetic patients, with heart disease responsible for approximately one-half the total,[2,3] and coronary atherosclerosis the major cause of cardiac lesions.[1] While some feel that diabetics are predisposed, perhaps by heredity, to early onset of vascular disease, considered opinion is that vascular degeneration can be delayed or modified with "...careful and consistent control of diabetes from the time of diagnosis...."[4]

As a major step toward achieving *careful and consistent control,* you can teach your patients to do urine-sugar testing in the way most likely to assure continued cooperation—with the CLINITEST® Urine-Sugar Analysis Set.

for quantitative estimation

color-calibrated

clinitest®
urine sugar

- continued, close control
- graphic *Analysis Record* encourages cooperation...reveals degree of control at a glance...helps patient maintain control

for "yes-or-no" enzymatic testing

new, improved

DIP AND READ **clinistix®**
urine glucose

10-second reading...longer strip for easier handling...new color chart and color barrier for test area...in glass for protection

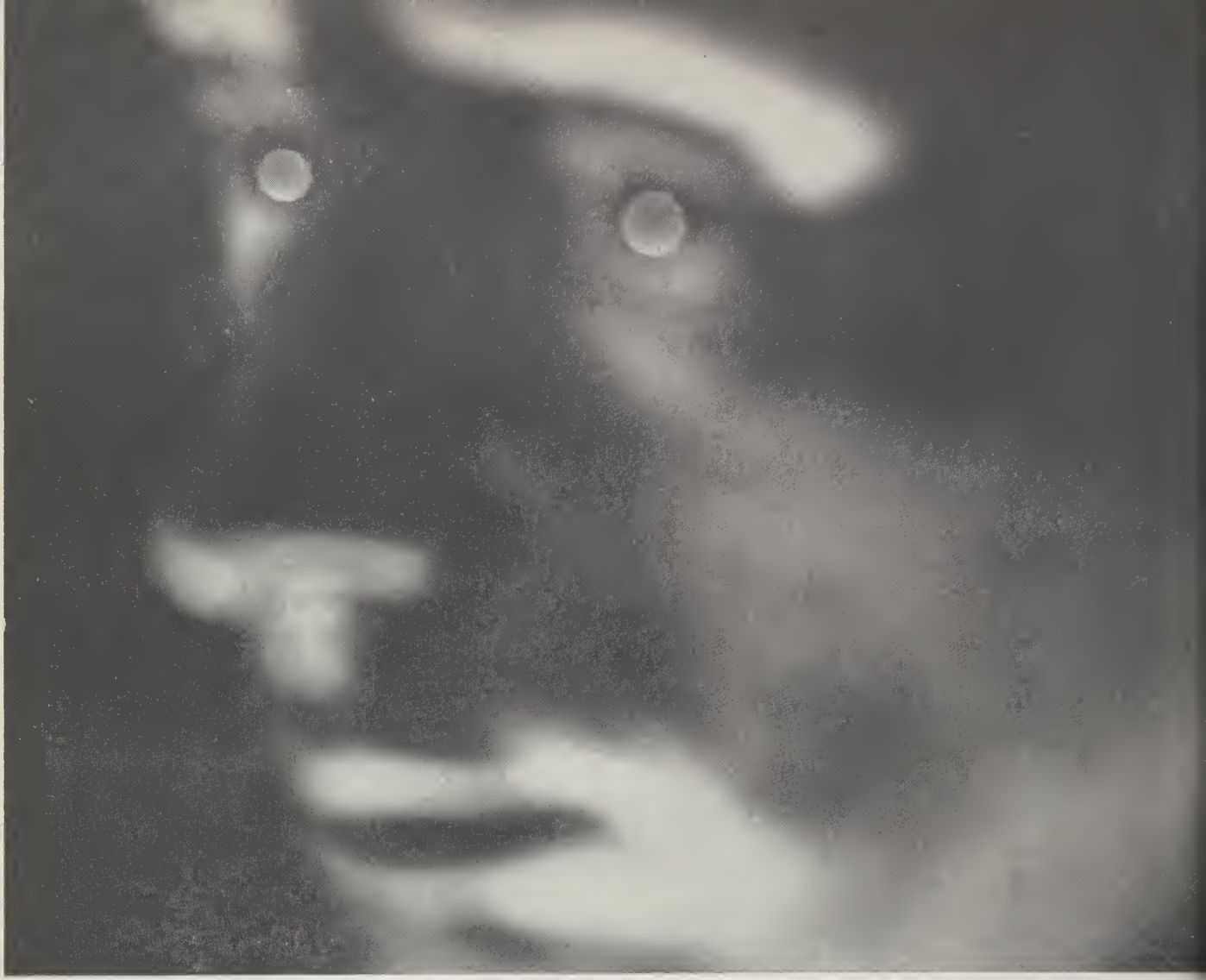
Supplied: CLINITEST Urine-Sugar Analysis Set (with bottle of 36 tablets and 2 foil-wrapped tablets); refill boxes of 24 Sealed-in-Foil Reagent Tablets and bottles of 36 tablets. CLINISTIX Reagent Strips in bottles of 60.

References: (1) Root, H. F., and Bradley, R. F., in Joslin, E. P.; Root, H. F.; White, P., and Marble, A.: The Treatment of Diabetes Mellitus, ed. 10, Philadelphia, Lea & Febiger, 1959, pp. 411, 437. (2) Joslin, E. P.; Root, H. F.; White, P., and Marble, A.: *ibid.,* pp. 188-189. (3) Marks, H. H., *et al.:* Diabetes 9:500, 1960. (4) Marble, A., in Summary of Conference on Diabetic Retinopathy, Survey Ophth. (Part 2) 6:611-612, 1961.

AMES
COMPANY, INC
Elkhart • Indiana
Toronto • Canada

AMES *products are available through your regular supplier.*

21462



"Fear is sharpsighted..."

and has excellent ears as well. Witness the apprehensive cardiac who can hear his own heartbeat in the noisiest surroundings—the primigravida who experiences birth pangs six months ahead—the surgical patient who sees doom in the frown of a nurse.

It is in highly tense and anxious patients such as these that the "Librium Effect" shows up most distinctly. What is the Librium Effect? It's difficult to describe, but a patient treated with Librium feels different, even after a few doses. He appears different to his family and to his physician. Different not only in the sense of a change from the previous state of anxiety and tension, but also from the effect created by daytime sedatives or tranquilizers. Of very practical importance, too, is the fact that Librium does not depress the anxious patient and hence may be used safely even in the presence of depression. If you have patients whose "fear-sharpened" senses are making them—and those about them—miserable, why not investigate the "Librium Effect" for yourself? Consult literature and dosage information, available on request, before prescribing.

FOR RELIEF OF ANXIETY AND TENSION

LIBRIUM

THE SUCCESSOR TO THE TRANQUILIZERS

LIBRIUM® Hydrochloride—7-chloro-2-methylamino-5-phenyl-3H-1,4-benzodiazepine 4-oxide hydrochloride

NAT LIBRARY OF MED
WASHINGTON 25 D C

ROCHE

ROCHE

JOURNAL OF THE Mississippi STATE MEDICAL ASSOCIATION

AUGUST 1962



. . . even though surrounded by allergens. Co-Pyronil® provides smooth, continuous control of allergic symptoms—relief in minutes for hours, with virtually no side-effects. And there is a dosage form for every allergic patient.

Pulvules®
Suspension
Pediatric Pulvules

Co-Pyronil®
(pyrrobutamine compound, Lilly)

Each Pulvule contains Pyronil® (pyrrobutamine, Lilly), 15 mg.; Histadyl® (methapyrilene hydrochloride, Lilly), 25 mg.; and Clopane® Hydrochloride (cyclopentamine hydrochloride, Lilly), 12.5 mg. Each pediatric Pulvule or 5-cc. teaspoonful of the suspension contains half of the above quantities. This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana.

Lilly

25401S

NATIONAL

This Month . . . Coarctation of the Aorta, Treatment of Arthritis, Use of Gamma Globulin in Hepatitis, Proceedings of House

M.S.M.A


R IS FOR RAGWEED...
MOST TROUBLESOME ALLERGEN
R

WHEN DISCOMFORTS MOUNT WITH THE POLLEN COUNT

BENADRYL®

antihistaminic-antispasmodic

RELIEVES SYMPTOMS OF HAY FEVER

BENADRYL provides effective dual action to help control the allergic attack.

Antihistaminic action: A potent antihistaminic, BENADRYL breaks the cycle of allergic response, bringing relief of nasal congestion, sneezing, lacrimation, and pruritus.

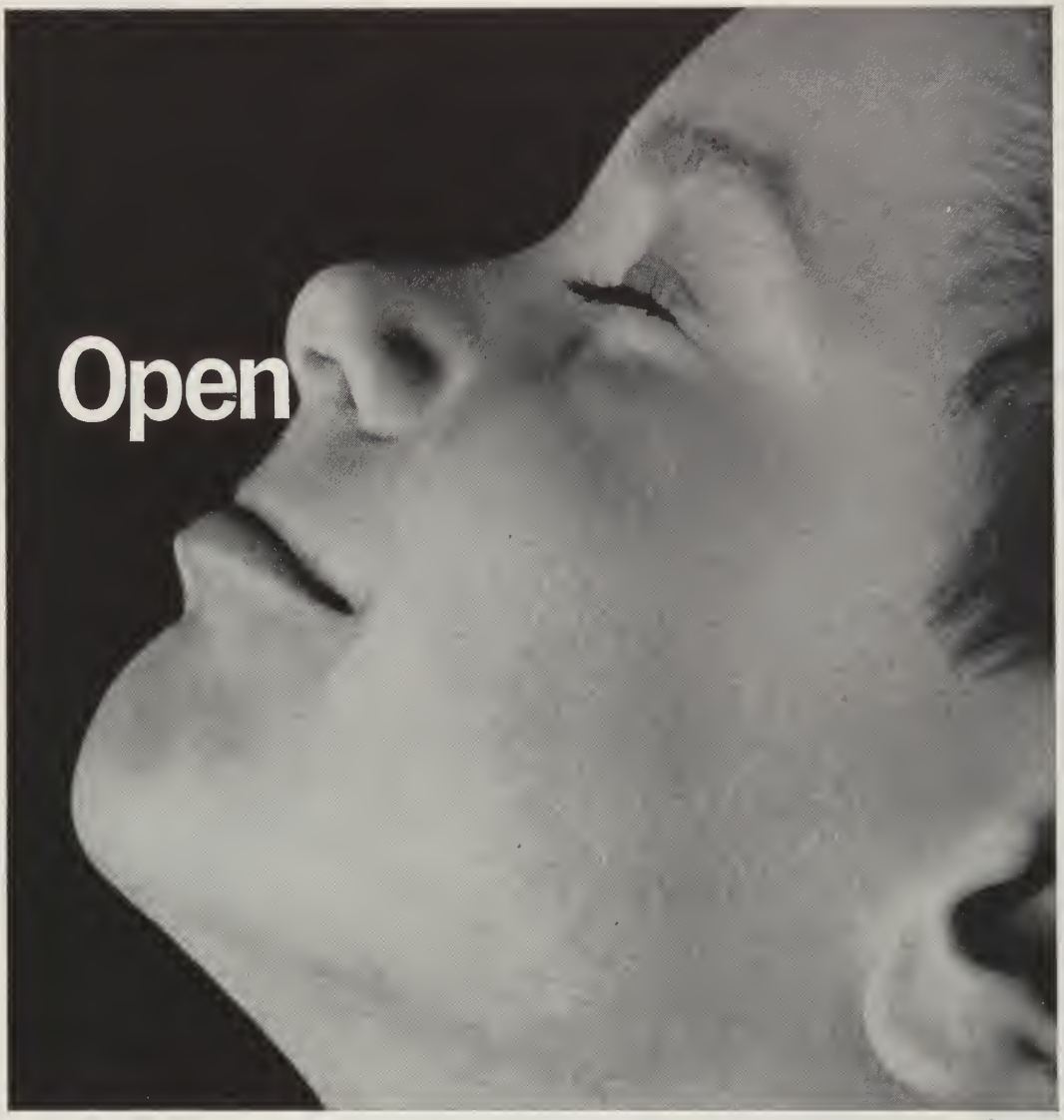
Antispasmodic action: Because of its inherent atropine-like properties, BENADRYL affords relief of bronchial spasm.

BENADRYL Hydrochloride (diphenhydramine hydrochloride, Parke-Davis) is available in a variety of forms including: Kapseals,® 50 mg.; Capsules, 25 mg.; Emplets® (enteric-coated tablets), 50 mg.; in aqueous solutions: 1-cc. Ampoules, 50 mg. per cc.; 10- and 30-cc. Steri-Vials,® 10 mg. per cc.; Elixir, 10 mg. per 4 cc.; Cream, 2%; and Kapseals of 50 mg. BENADRYL Hydrochloride with 25 mg. ephedrine sulfate.

This advertisement is not intended to provide complete information for use. Please refer to the package enclosure, medical brochure, or write for detailed information on indications, dosage, and precautions. 93162

PARKE-DAVIS

PARKE, DAVIS & COMPANY, Detroit 32, Michigan



NTZ Nasal Spray gives prompt, dependable decongestion of the nasal membranes for fast symptomatic relief of hay fever. The first spray shrinks the turbinates, restores nasal ventilation and stops mouth breathing. The second spray, a few minutes later, improves sinus ventilation and drainage. Excessive rhinorrhea is reduced.

NTZ is more than a simple vasoconstrictor. It contains Neo-Synephrine® HCl 0.5%—the efficacy of which is unexcelled—to shrink nasal membranes and provide inner space; Thenfadil® HCl 0.1% for potent topical antiallergic action; and Zephiran® Cl 1:5000 (antibacterial wetting agent) to promote the spread of the decongestant components to less accessible nasal areas. NTZ is well tolerated and does not harm respiratory tissues.

NTZ Nasal Spray also provides decongestive relief for head colds, perennial rhinitis and sinusitis. Supplied in leakproof, pocket-size, squeeze bottles of 20 ml. and in bottles of 30 ml. with dropper.

helps hay fever patients forget the "season"

NTZ® **Nasal Spray**

Winthrop LABORATORIES New York 18, N. Y.

NTZ, Neo-Synephrine (brand of phenylephrine), Thenfadil (brand of thenyldiamine) and Zephiran chloride (brand of benzalkonium chloride, refined)

Volume III
Number 8
August 1962



JOURNAL of the Mississippi
STATE MEDICAL ASSOCIATION

• EDITOR
WILLIAM M. DABNEY, M.D.

• ASSOCIATE EDITORS
DEWITT HAMRICK, M.D.
GEORGE H. MARTIN, M.D.

• MANAGING EDITOR
ROWLAND B. KENNEDY

• EDITORIAL ASSISTANT
BETTY M. SADLER

• PUBLICATIONS COMMITTEE
LAWRENCE W. LONG, M.D.
Chairman
B. B. O'MARA, M.D.
WILLIAM E. LOTTERHOS, M.D.
and the Editors

• THE ASSOCIATION
C. P. CRENSHAW, M.D.
President
JOHN G. ARCHER, M.D.
President-elect
C. G. SUTHERLAND, M.D.
Secretary-Treasurer
B. B. O'MARA, M.D.
Speaker
HOWARD A. NELSON, M.D.
Vice Speaker
ROWLAND B. KENNEDY
Executive Secretary
CHARLES L. MATHEWS
Assistant Executive Secretary

The JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION is owned and published by the Mississippi State Medical Association, founded 1856. Editorial, executive, and business offices, 735 Riverside Drive, Jackson, Mississippi; office of publication, 1201-5 Bluff Street, Fulton, Missouri. Subscription rate, $5 per annum; $1 per copy, as available. Advertising rates furnished on request. Second-class postage paid at the post office at Fulton, Missouri.

CONTENTS

ORIGINAL PAPERS

Coarctation of the Aorta: Review of the Clinical Problem With Illustrative Cases **341** WATTS R. WEBB, M.D., and JAMES D. HARDY, M.D.

Fads and Fancies in the Treatment of Arthritis **345** RUSSELL L. CECIL, M.D.

Suggested Guides for Use of Gamma Globulin as a Prophylaxis With Respect to Hepatitis **349** DURWARD L. BLAKEY, M.D.

SPECIAL FEATURES

The Traffic of Tragedy **351** LAWRENCE W. LONG, M.D.

Radiologic Seminar IV **354** JACK K. GOODRICH, M.D.

CPC XXXI **356** Mississippi Baptist Hospital

Proceedings of the House of Delegates **359** 94th Annual Session

EDITORIALS

Far Above Cayuga's Waters: Crash! **385** The Cornell Story

It Costs Less Than the Coffee Break **386** Rehab Cuts Premiums

Jack's Black Tuesday **386** Nix on Socialism

THIS MONTH

The President Speaking **358** 'Hits, Runs, and Errors'

The Literature **387** Books and Journals

Medical Organization **389** AMA's New Veep

Copyright 1962, Mississippi State Medical Association

when occupational allergies strike









CONTINUOUS 10-12 HOUR ACTION

Dimetane® Extentabs®

brompheniramine maleate 12 mg.

reliably relieve the symptoms... seldom affect alertness

Also available in conventional tablets, 4 mg.; Elixir, 2 mg./5 cc.; Injectable, 10 mg./cc. or 100 mg./cc.

A. H. ROBINS CO., INC., RICHMOND 20, VA.

MAKING TODAY'S MEDICINES WITH INTEGRITY ... SEEKING TOMORROW'S WITH PERSISTENCE

PHARMACEUTICALS · RESEARCH ·

NEWSLETTER

MISSISSIPPI STATE MEDICAL ASSOCIATION
JACKSON, MISSISSIPPI

August 1962

Dear Doctor:

The governors and Gallup toted up a weak score for the Anderson-Javits compulsory care for aged amendment as opposition continued to mount. States' chief executives, meeting at 54th Annual Governors Conference in Hershey, Pa., turned thumbs down on Social Security measure despite high momentum gained in Senate where it was tacked on welfare bill.

> The Gallup poll, hardly the most objective opinion measure on this crucial issue, shows progressive deterioration of support. Those sampled who favor compulsory Social Security approach declined during last 90 days from 54 to 48 per cent while those favoring private insurance rose from 34 to 41 per cent. Undecided are 11 per cent.

July walkout of Austria's 14,000 physicians in one day strike against government care program was third such incident in two years. Japanese doctors rebelled against low fees and then Saskatchewan physicians quit cold over newly instituted socialization plan. Austrians simply wanted fee increase from $6.80 to $9.28 per patient per year, all they receive for total services from state "insurance" plan.

More new construction is scheduled for University of Mississippi School of Medicine as institution develops physical facilities. Community Facilities Administration approved loan of $506,000 for building a dormitory to house 104 men and an apartment structure for married students. University officials estimate total enrollment will increase from 500 to 750 in five years.

The summer anthrax outbreak affecting nine north Mississippi counties is subsiding, says Dr. Vernon D. Chadwick, state veterinarian. Heaviest hit were Attala, Grenada, Noxubee, and Winston but Calhoun, Carroll, Leflore, Montgomery, and Tallahatchie counties were also struck. Toll of livestock was 350 head during height of epidemic.

The nation's most authoritative first aid manual has been revised to cover cuts to childbirth and scorpion sting to mental disturbance. AMA has just republished its pocket size 48 page booklet which, spokesmen say, eliminates some of the old first aid procedures found to be more injurious than the injury itself.

Sincerely,

Rowland B. Kennedy
Executive Secretary

DATELINE - MEDICAL AMERICA

Confections, Soft Drinks Sales Opposed In School Lunchrooms

Chicago - Get the candy bar and cola off the school lunch menu, so says AMA's Council on Food and Nutrition. Contending that the nutritional benefit of confections and carbonated beverages is greatly inferior to that of milk, fruit, and other foods, the council said that children shouldn't be tempted with a sweet tooth choice. Pronouncement was re-enforced with point that lunchrooms play vital role in influencing food habits of students.

PMA Releases New Drug Data

Washington - Detailed information on 544 new single chemical entities introduced in the drug field during the past 20 years has been published by the Pharmaceutical Manufacturers Association. Entitled "Review of Drugs, 1941-1961," the compendium is divided into 35 therapeutic classifications and stresses depth and scope of drug research and development as well as source rather than attempting to detail merit of each item. American manufacturers developed 95 per cent of compounds listed.

TV Doctor Turns Up In Real Life Suit

Cleveland - Dr. Ben Casey, the TV neurosurgeon, became highly involved in a professional liability suit when the plaintiff's attorney decided that prospective jurors might be influenced by his case results. During a voir dire examination, the lawyer grilled a venireman, arguing that Dr. Casey made M.D.'s look too good. The court sustained a defense objection when counsel for defendant pointed out that an occasional Casey patient failed to recover. Topping it all off, the real life doctor being sued won the case.

A & R Foundation Blasts Canadian Nostrum

New York - A secret remedy for arthritis promoted by an unlicensed Canadian physician, Dr. Robert Liefmann, Montreal, has been denounced by the Arthritis and Rheumatism Foundation as worthless. Claiming that his basement-brewed preparation, "Liefcort," could practically "wipe out the symptoms of arthritis in one year," Liefmann broke into major print in a recent Look Magazine article. He previously made "hair growing" preparations and various skin ointments.

Hospital Association Is On Record Against Anderson-Javits

Chicago - Frank S. Groner, spokesman for the American Hospital Association, said that AHA opposes the Anderson-Javits amendment on the same basis that it rejected the King-Anderson bill. The official declared that his group objected to the Social Security funding principle and to the lack of a means test. Although AHA "recognizes that government assistance is necessary" for care of some senior citizens, it has opposed both major measures for compulsory federal care of aged in present Congress.

New from SAUNDERS

Just Ready! **Kline & Lehmann—**

Handbook of Psychiatric Treatment in Medical Practice

A Storehouse of Practical Advice for the Nonpsychiatrist on Handling the Psychiatric Patient! In simple everyday language, this new book tells you why it is often preferable for the average psychiatric patient to be treated by his family doctor rather than by a psychiatrist. The authors tell you when to refer a patient; which patients you should **not** treat (*arsonists, addicts, homicidal patients, exhibitionists*) and why. Here is only a sample of the problems for which you'll find satisfying answers: *How much psychiatry does the medical practitioner need to know?* Which neurotics should you treat? *What is the prognosis for psychiatric patients?* Do you have time to do psychotherapy? *What are the factors in selecting a psychopharmaceutical?* What are the stigmata of impending suicide? *How to diagnose anxiety?* A special 12-page section lists dosage schedules for all useful psychopharmaceuticals.

By Nathan S. Kline, M.D., F.A.C.P., Rockland State Hospital, Orangeburg, N.Y.; Department of Psychiatry, Columbia University College of Physicians and Surgeons; and Heinz Lehmann, M.D., Verdun Protestant Hospital, Montreal; Department of Psychiatry, McGill University Faculty of Medicine. About 114 pages, 6"x9¼". About $3.50. *New—Just Ready!*

Just Published! **Finneson—**

Diagnosis and Management of Pain Syndromes

A Concise and Well Illustrated Guide to Handling Those Pain Syndromes You Meet in Daily Practice! For each painful sensation — ranging from *headache* to *intractable pain due to cancer*— the author describes location and nature, differential diagnosis, pathophysiology and management. Drug therapy, physical therapy, major and minor surgery are all covered. Dr. Finneson begins with a comprehensive discussion of the anatomic and physiologic nature of pain, covering both its physical and psychologic effects. Effective management is then described and illustrated for such specific problems as: *Facial pain—Low-back pain and sciatica—Visceral pain of the chest and abdomen—Neck pain and cervicobrachial neuralgia — Pelvic and perineal pain—Peripheral vascular pain— Causalgia, painful scars and post-infection neuralgia.* A few of the many practical discussions include: Toxic reactions to drugs—Surgery for trigeminal neuralgia —Traction for acute cervical pain—Treatment of phantom limb pain—etc.

By Bernard E. Finneson, M.D., F.A.C.S., Neurosurgeon, The Episcopal Hospital, Philadelphia. 261 pages, 6½"x9¾", 166 illustrations. $8.50 *New—Just Published!*

New (2nd) Edition! **By Paul Williamson, M.D.**

Office Procedures

Hundreds of Common Sense Procedures to Help Make Diagnosis Easier but More Accurate, to Help Make Treatment Simpler but More Effective! This time-saving book gives you precise descriptions on how to perform such procedures as cauterization of the cervix, proctoscopy, hearing tests, repair of wounds, office anesthesia. Dr. Williamson tells you how to use the instruments and equipment you have to best advantage and how to improvise when necessary with common articles like hairpins, paper clips, and coat hangers. For this edition new sections are incorporated on *office psychiatry* and on *management of geriatric patients.* Among the score of other important changes are: *a new section on examination of the newborn* —new material on radiologic examination of fractures of the limbs—*new office tests for hiatal hernia of the esophagus* — expansion of the section on physical therapy — *coverage of disorders of the breast in the section on minor surgery.*

By Paul Williamson, M.D. Illustrated by Ann Williamson. About 460 pages, 8"x10¾", 1090 illustrations. About $13.50. *New (2nd) Edition—Ready September!*

Mail Coupon Below!



Order from

W. B. SAUNDERS COMPANY

West Washington Square Philadelphia 5

Please send when ready and bill me:

- ☐ Kline & Lehmann's Psychiatric Treatment in Medical Practice, about $3.50
- ☐ Finneson's Diagnosis & Management of Pain Syndromes, $8.50
- ☐ Williamson's Office Procedures, about $13.50

Name.....

Address.....

.....SJG 8-62



BENEFICIAL RESULTS were obtained with **SARDO** in the bath in 122 of 135 patients (90%) with dry, itchy skin conditions, in most cases with beneficial effect "after the first bath." Dryness was allayed in all cases, and associated itching "either completely relieved or greatly improved." No irritation or sensitization was observed.

This new study corroborated others[2-4] showing that SARDO helps re-establish the normal physiologic lipid-aqueous skin balance.

Pleasant, easy-to-use SARDO releases millions of microfine water-dispersible globules* in the bath. Bottles of 4, 8 and 16 oz.

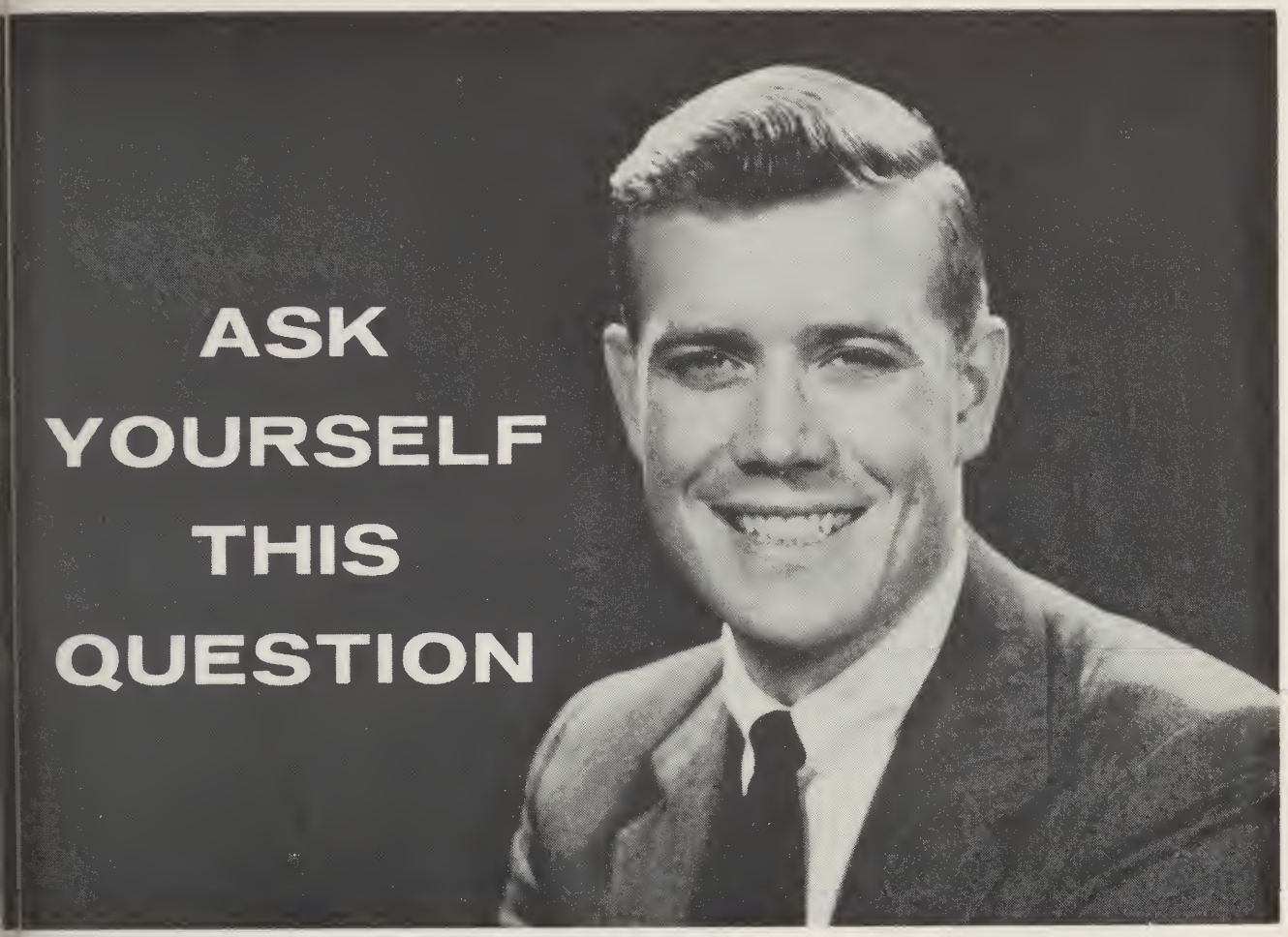
©1962 *Patent Pending T.M.

SAMPLES and literature available from . . .

SARDEAU, INC.

75 East 55th Street, New York 22, N. Y.

1. Borota, A., and Grinell, R. N.: J. Amer. Geriatrics Soc., 10:413, 1962.
2. Spoor, H. J.: N. Y. State J. M. 58:3292, 1958.
3. Lubowe, I. I.: Western Med. 1:45, 1960.
4. Weissberg, G.: Clin. Med. 7:1161, 1960.



"*How can I set a savings goal -and guarantee I'll get there?*"

First Federal of Jackson provides the answer in Guaranteed Dollars – a plan that will bring a smile to your face. The secret is systematic monthly saving, coupled with insurance on your life. Saving builds your cash reserve; life insurance assures your savings goal if death should occur. As savings increase, life insurance decreases, thus giving your plan a constant value at all times. There is nothing to compare. You save, your money earns and you have the protection of life insurance to assure your savings goal. Withdrawals may be made at any time, providing an extra reserve fund for emergencies if necessary.

Guaranteed Dollars Plans available in any amount for 10, 15, 20 years or longer. Call or write today for further details, giving your age, amount you want to save, and length of time desired.

FIRST FEDERAL
SAVINGS AND LOAN ASSOCIATION

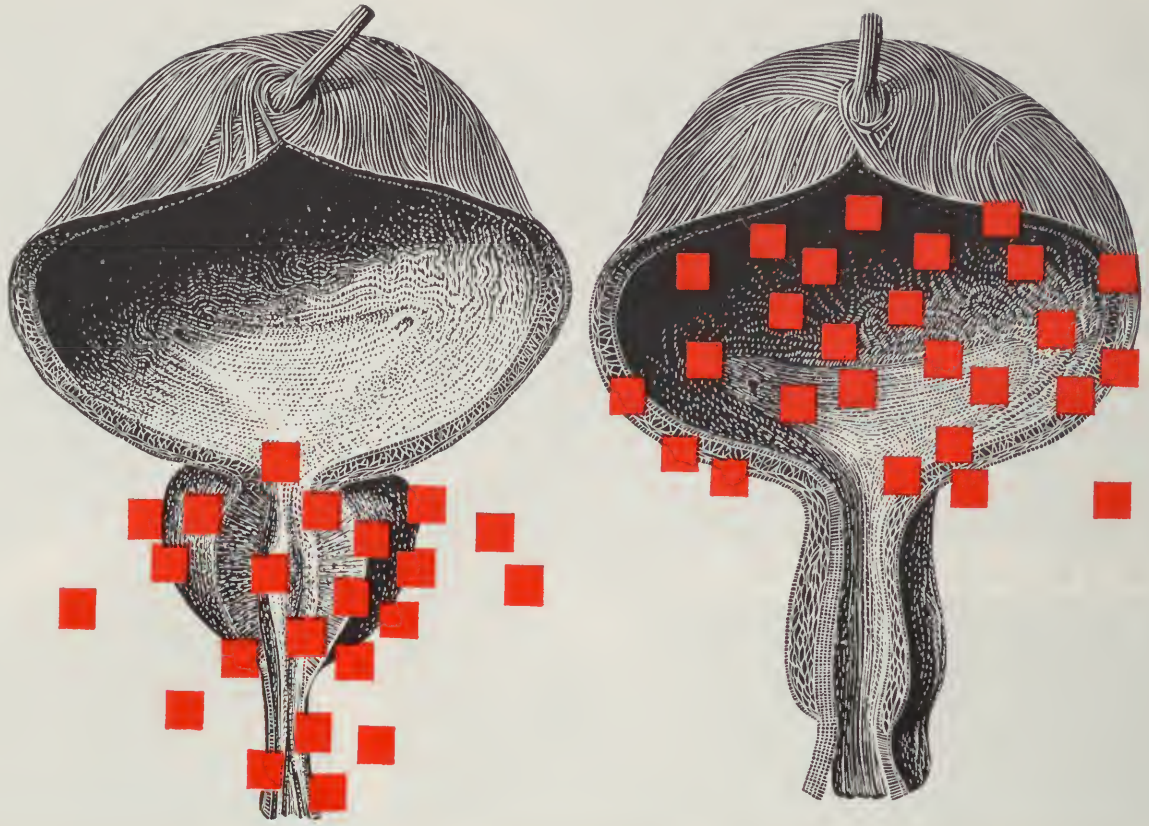
CAPITOL AT STATE
JACKSON, MISSISSIPPI

Guaranteed Dollars
SAVINGS PLAN

If you're 35 years old
Save $35.78 monthly for $10,000
20-year plan
(Progress of plan as each year passes)

Attained Age	As Savings Increase	Insurance Decreases	Total Value of Plan
36	373.48	12,996.00	13,369.48
37	762.05	12,312.00	13,074.05
38	1,166.32	11,628.00	12,794.32
39	1,586.92	10,944.00	12,530.92
40	2,024.52	10,260.00	12,284.52
41	2,479.79	9,576.00	12,055.79
42	2,953.46	8,892.00	11,845.46
43	3,446.26	8,208.00	11,654.26
44	3,958.97	7,524.00	11,482.97
45	4,492.39	6,840.00	11,332.39
46	5,047.37	6,156.00	11,203.37
47	5,624.76	5,472.00	11,096.76
48	6,225.49	4,788.00	11,013.49
49	6,850.48	4,104.00	10,954.48
50	7,500.72	3,420.00	10,920.72
51	8,177.23	2,736.00	10,913.23
52	8,881.08	2,052.00	10,933.08
53	9,613.35	1,368.00	10,981.35
54	10,375.22	684.00	11,059.22
55	11,167.85	.00	11,167.85

You Save $8,650.95 – You Earn $2,516.90



Serenium

Squibb Ethoxazene (Diamino-Ethoxy-Azobenzene Hydrochloride)

Quickly eliminates pain and burning in the lower urinary tract

At real savings to your patients

Serenium provides **quick, localized analgesic action** in acute and chronic urinary tract infections with **only 1 tablet** t.i.d. Your patient is assured of the prompt action of Serenium by the harmless orange-red color of the urine; and he will feel good about the **low prescription cost,** too.

Supply: Bottles of 50 and 500 chocolate-covered tablets. Each tablet contains 0.1 Gm. of Squibb Ethoxazene. For full information see your Squibb Product Reference or Product Brief.

Serenium® is a Squibb trademark

SQUIBB *Squibb Quality—the Priceless Ingredient*

SQUIBB DIVISION Olin



Patients show no lack of enthusiasm for appetizing diet dishes.

How to help your patient stick to a high vitamin-mineral diet

The secret ingredient in a successful diet is acceptance. If foods are varied and inviting, a patient will be more inclined to follow the diet faithfully.

The menu pictured above is a tempting example of well-balanced diet planning. This cottage cheese salad dotted with dried fruits and peanuts is an attractive source of calcium, iron, Vitamin A, B_2, niacin and C. Oysters supply vitamins A and D, iron and calcium. Colorful cabbage-carrot slaw contains vitamins A and C and calcium.

For dessert: custard topped with orange juice concentrate, providing calcium, as well as vitamins A, B_1, B_2 and C.

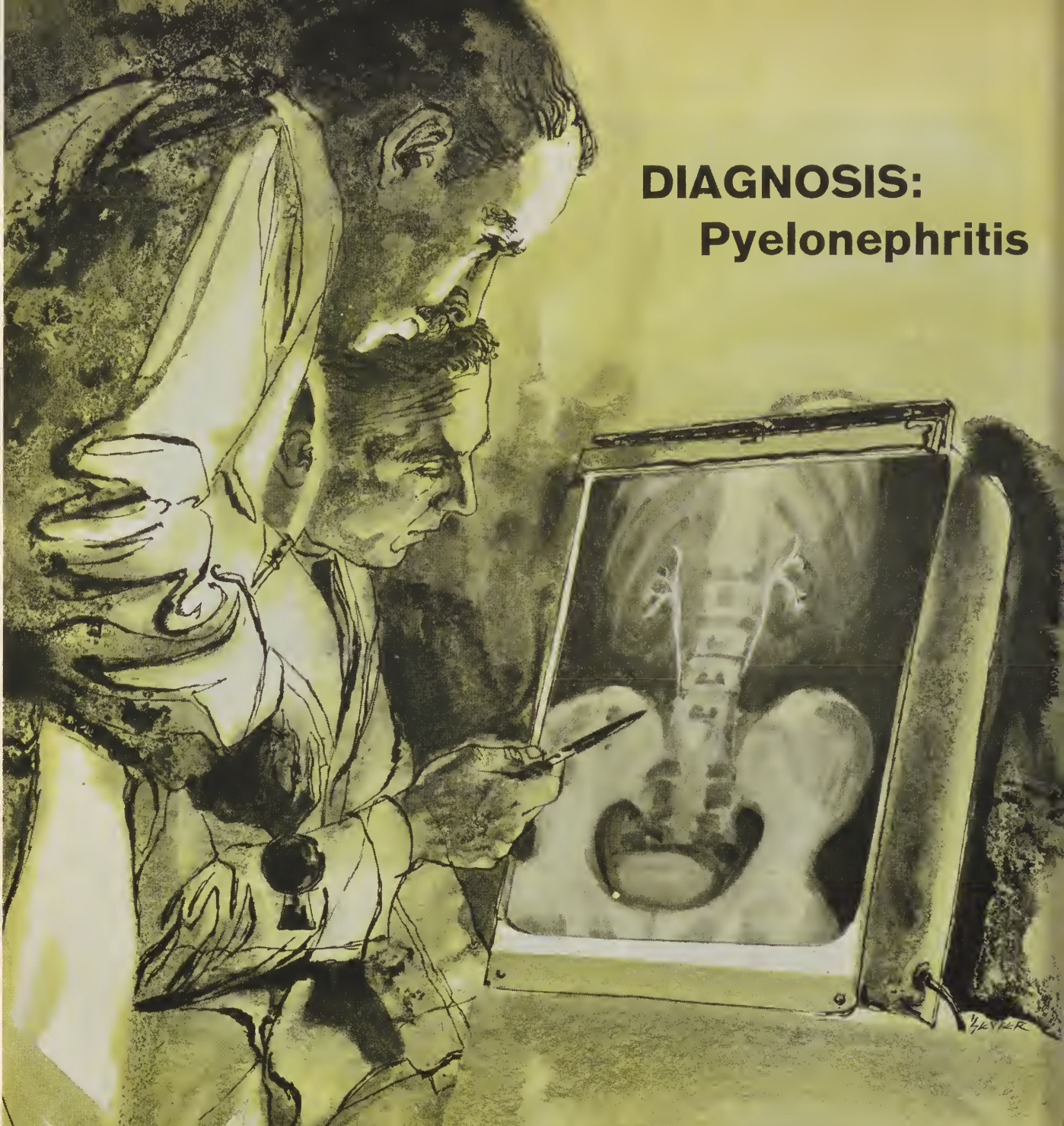


A glass of beer can add zest to a patient's diet.

8 oz. glass contains 10 mg. calcium. 50 mg. phosphorus, 1-8 min. daily requirement of niacin, smaller amounts of other B-complex vitamins. (Average of American Beers)

United States Brewers Association, Inc.

For reprints of this and 11 other diet menus, write us at 535 Fifth Avenue, N.Y. 17, N.Y.



DIAGNOSIS: Pyelonephritis

THERAPEUTIC NEED: Rapid suppression of causative o
ganisms and attention to fluid requirements.

ANTIBIOTIC: DECLOMYCIN

Demethylchlortetracycline Leder

because it is highly effective against the common path
gens in G. U. infections.

Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Depart

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Leder



Kent's development of the "Micronite" filter revolutionized the cigarette industry. Shortly after introduction of Kent with its famous filter, the swing to filter cigarettes got started in earnest. And no wonder. Kent with the "Micronite" filter refines away harsh flavor, refines away hot taste, makes the taste of a cigarette mild and kind.

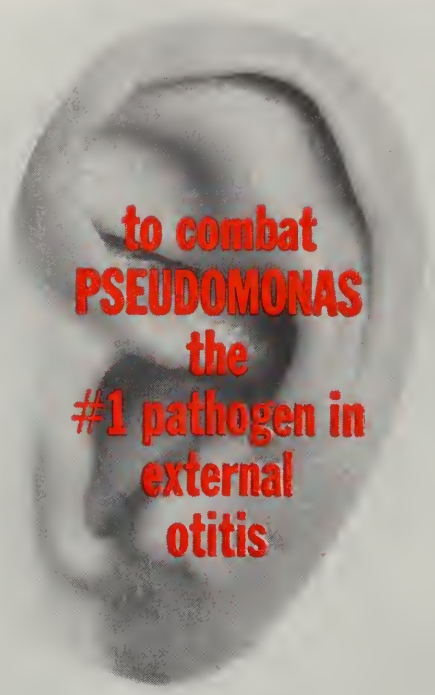
Yes, Kent is kind-tasting to your taste buds, kind-tasting to your throat. Your taste buds become clear and alive with Kent.

• • •

Your taste buds will tell you why you'll feel better about smoking with the taste of Kent.

A PRODUCT OF P. LORILLARD COMPANY · FIRST WITH THE FINEST CIGARETTES · THROUGH LORILLARD RESEARCH

© 1961 P. LORILLARD CO.



'CORTISPORIN'®

OTIC DROPS (sterile)

brand

the #1 therapy for inflamed, infected ears

Because it provides Polymyxin B for the eradication of Pseudomonas, the prime cause of external otitis, 'Cortisporin' is the logical choice of treatment for inflamed, infected ears. Polymyxin B is the antibiotic specific for *Pseudomonas aeruginosa* infections, and is, for this pathogen, the standard of effectiveness against which other antibacterials are measured.

- Anti-inflammatory
- Antipruritic
- Antibacterial



Each cc. contains:

'Aerosporin'® brand Polymyxin B sulfate	10,000 units
Neomycin Sulfate (Equivalent to 3.5 mg. Neomycin Base)	5 mg.
Hydrocortisone	10 mg. (1%)

Bottles of 5 cc. with sterile dropper.

Literature available on request.

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N. Y.



GROWTH

When should the tree cease its upward reaching?

Ten years ago, Mississippi Blue Cross-Blue Shield had 142,000 members. **Today, membership stands at over 365,000.** Ten years ago, benefits were paid at an annual rate of just over $1,500,000. **In 1961, almost $13,000,000 was paid out in benefits.** Accumulated benefits paid out since Mississippi Blue Cross-Blue Shield was founded 14 years ago total **75 million dollars.** Such growth in membership and benefits attests Mississippi Blue Cross-Blue Shield's remarkable success. Here is a unique story of growth and service to people in this area. ☐ Mississippi Blue Cross-Blue Shield will continue to develop practical, comprehensive and progressive programs to maintain the best health care protection money can buy.

MISSISSIPPI

BLUE CROSS
BLUE SHIELD

MISSISSIPPI HOSPITAL & MEDICAL SERVICE / 530 EAST WOODROW WILSON AVE. / JACKSON, MISS. / TELEPHONE EM 6-1422



1. *In otitis media* 2. *In pyoderma*
3. *In laryngopharyngitis*
4. *In bacterial pneumonia*
5. *In bronchiectasis* 6. *In osteomyelitis*

In these and other bacterial infections, give Panalba* in addition to the usual surgical or other appropriate therapeutic measures. *From the outset,* pending laboratory determinations, your treatment broadens in antibacterial coverage because of the simultaneous administration of two antibiotics that complement each other. They were carefully chosen for this purpose.

Panalba combines tetracycline (selected for its breadth of coverage) and novobiocin (selected for its unique effectiveness against staph). That is why, in most infections of unknown etiology, Panalba offers excellent chances for therapeutic success.

Reminder advertisement. Please see package insert for detailed product information.

Upjohn

THE UPJOHN COMPANY
KALAMAZOO, MICHIGAN

*TRADEMARK, REG. U.S. PAT. OFF. COPYRIGHT 1962, THE UPJOHN COMPANY

Relieves Anxiety and Anxious Depression



The outstanding effectiveness and safety with which Miltown relieves anxiety and anxious depression—the type of depression in which either tension or nervousness or insomnia is a prominent symptom — has been clinically authenticated time and again during the past six years. This, undoubtedly, is one reason why physicians still prescribe meprobamate more often than any other tranquilizer in the world.

Miltown®

meprobamate (Wallace)

Usual dosage: One ar twa 400 mg. tablets t.i.d.
Supplied: 400 mg. scared tablets, 200 mg. sugar-coated tablets; battles af 50. Alsa as MEPROTABS® — 400 mg. *unmarked*, caated tablets; and in *sustained-release* capsules as MEPROSPAN®-400 and MEPROSPAN®-200 (containing respectively 400 mg. and 200 mg. meprabamate).

WALLACE LABORATORIES / *Cranbury, N. J.*

CM-6709

Clinically proven in over 750 published studies

1. Acts dependably — without causing ataxia or altering sexual function
2. Does not produce Parkinson-like symptoms, liver damage or agranulocytosis
3. Does not muddle the mind or affect normal behavior

College of Physicians Announces Courses

A schedule of 15 postgraduate courses to be presented throughout the country during 1962-63 has been announced by the American College of Physicians.

Averaging five days in duration, the concentrated courses are part of the ACP's postgraduate program which is aimed at providing practicing physicians with current information on internal medicine and related specialties.

According to Dr. Edward C. Rosenow, Jr., Philadelphia, Pa., executive director of the American College of Physicians, the 1962-63 series of courses, which marks the 24th since the program was inaugurated, is expected to attract more than 1,300 specialists from the United States and Canada.

"The postgraduate courses help the College to discharge one of its major responsibilities—that of maintaining and advancing the highest possible standards in medical education," Dr. Rosenow said. "Through them we are making an effort to bridge the gap between scientific discoveries and patient care."

The 1962-63 courses and their directors are:

Oct. 1-5: DIFFICULT CONTEMPORARY PROBLEMS IN INTERNAL MEDICINE—University of Oregon Medical School, Portland, Ore.; Co-directors: Howard P. Lewis, M.D., and Daniel H. Labby, M.D.

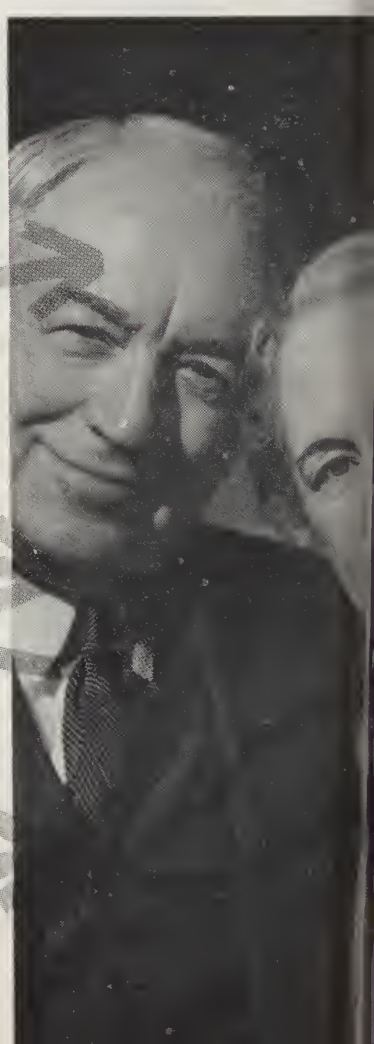
Oct. 1-5: BASIC MECHANISMS IN INTERNAL MEDICINE—Medical College of Virginia School of Medicine, Richmond, Va.; Director: W. T. Thompson, Jr., M.D.; Co-directors: Charles M. Caravati, M.D., and Kinloch Nelson, M.D.

Oct. 8-12: ADVANCES IN THE MEDICAL ASPECTS OF CANCER—Memorial Hospital, Memorial Sloan-Kettering Cancer Center, New York, N. Y.; Co-directors: Rulon W. Rawson, M.D., and W. P. Laird Myers, M.D.

Oct. 15-19: BIOLOGIC FOUNDATIONS FOR THE MEDICINE OF TOMORROW—The University of Wisconsin Medical School, Madison, Wis.; Co-directors: Karver L. Puestow, M.D., Ovid O. Meyer, M.D., and John LeRoy Sims, M.D.

Oct. 29-Nov. 2—THE RHEUMATIC DISEASES—PATHOLOGY, DIAGNOSIS AND

arlidin
increases blood flow to the brain in the "senility syndrome" associated with cerebrovascular insufficiency



TREATMENT—Robert B. Brigham Hospital and Peter Bent Brigham Hospital, Boston, Mass.; Director: Theodore B. Bayles, M.D.; Associate Directors: George F. Cahill, Jr., M.D., Arthur P. Hall, M.D., and J. Peter Kulka, M.D.

Nov. 13-17: ENDOCRINOLOGY AND METABOLISM—The Johns Hopkins Hospital, Baltimore, Md.; Director: Samuel P. Asper, Jr., M.D.

Dec. 3-7: PSYCHIATRY FOR THE INTERNIST—University of Southern California School of Medicine, Los Angeles, Calif.; Director: Phil R. Manning, M.D.

Jan. 21-25: DISEASES OF THE BLOOD VESSELS AND PROBLEMS OF THROMBOEMBOLISM—DIAGNOSIS AND TREATMENT—Cornell University Medical College and The New York Hospital, New York, N. Y.; Director: Irving S. Wright, M.D.; Associate Director: William T. Foley, M.D.

Feb. 11-15: MODERN PHYSIOLOGICAL CONCEPTS OF CARDIOVASCULAR DISEASE—Presbyterian Medical Center, San Francisco, Calif.; Director: Arthur Selzer, M.D.

March 4-8: PHYSICAL METHODOLOGY IN MEDICAL RESEARCH—Massachusetts Institute of Technology, Cambridge, Mass.; Co-directors: Albert O. Seeler, M.D., and Professor Kurt Lion.

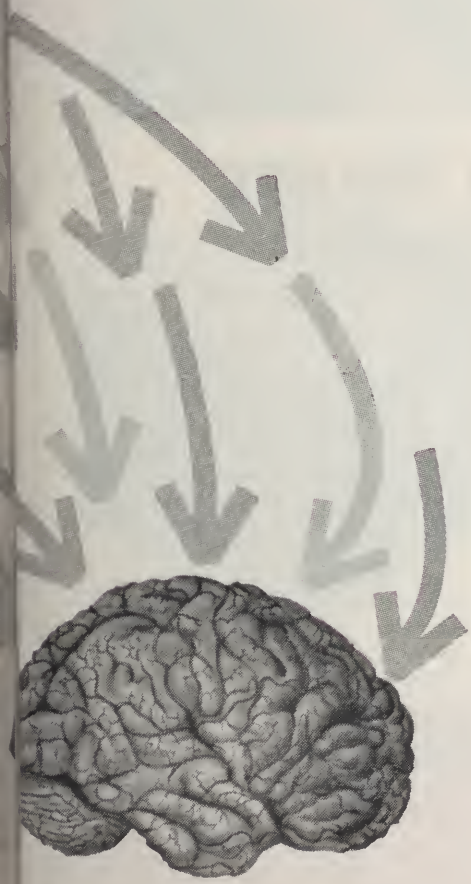
March 18-23: RECENT ADVANCES IN CARDIOVASCULAR DISEASE—The Mount Sinai Hospital, New York, N. Y.; Director: Charles K. Friedberg, M.D.

May 20-24: PHYSIOLOGICAL ASPECTS OF CARDIOPULMONARY DISEASE—Indiana University Medical Center, Indianapolis, Ind.; Director: John B. Hickam, M.D.; Co-director: Joseph C. Ross, M.D.

June 10-14: CURRENT TOPICS IN INTERNAL MEDICINE—State University of Iowa, Iowa City, Ia.; Director: William B. Bean, M.D.; Associate Director, Ernest O. Theilen, M.D.

June 24-28: INTERNAL MEDICINE: CURRENT PHYSIOLOGICAL CONCEPTS IN DIAGNOSIS AND TREATMENT—University of Cincinnati College of Medicine, Cincinnati, Ohio; Director: Richard W. Vilter, M.D.; Co-directors: Charles E. Kiely, M.D., and John R. Braunstein, M.D.

June 24-28: THE PSYCHOSOMATIC ILLNESSES—University of Colorado Medical Center, Denver, Colo.; Director: Herbert S. Gaskill, M.D.



Inadequate cerebral blood flow—often due to cerebral arteriosclerosis—may result in the "senility syndrome" with its pattern of mental confusion, memory lapses, depression, fatigue, apathy and behavior problems.[1-3]

43% increase in cerebral blood flow with Arlidin[4]

In patients with cerebrovascular insufficiency, Eisenberg[4] measured a 43 percent increase in blood flow in the brain following administration of Arlidin orally for more than two weeks beginning with a dosage of 12 mg. t.i.d. and increasing to 18 mg. t.i.d. There was a decrease in cerebral vascular resistance in most instances.

Winsor and associates[3] found Arlidin "of particular value **clinically** in relieving some of the symptoms of cerebral vascular insufficiency (vertigo, lightheadedness, mental confusion, diplopia)."

arlidin®

(BRAND OF NYLIDRIN HCl NND)

references: 1. Madow, L.: Penn. M. J. 62:861, June 1959. 2. Stieglitz, E. J.: Geriatric Medicine, ed. 2, Philadelphia, Saunders, 1949 p. 274. 3. Winsor, T., et al.: Amer. J. Med. Sciences 239:594, May 1960. 4. Eisenberg, S.: ibid, July 1960.

NOTE—before prescribing ARLIDIN the physician should be thoroughly familiar with general directions for its use, indications, dosage, possible side effects and contraindications, etc. Write for complete detailed literature.

u. s. vitamin & pharmaceutical corporation

Arlington-Funk Labs., division • 250 East 43rd Street, New York 17, N. Y.



In acne—24-hour-a-day skin care with antibacterial pHisoHex®

(contains 3% hexachlorophene)

In acne, pHisoHex, antiseptic detergent, provides *continuous* antibacterial action against the infection factor. With exclusive, frequent use, pHisoHex builds up an effective antibacterial film on the skin that resists rinsing—lasts from wash to wash. pHisoHex augments any other therapy of acne.

When pHisoHex was used for washing by 42 patients with acne, "the results were uniformly encouraging. . . ."[1] "No patient failed to improve."[1]

pHisoHex cleans the skin of acne patients better than soap because it is forty per cent more surface active. It is a powerful emulsifier of oil, an action particularly beneficial in acne. Moreover, it cleans the orifices of the sebaceous glands, sweat glands and hair follicles more rapidly and more thoroughly than soap. pHisoHex lacks the potentially harmful qualities of soap. It is nonalkaline, nonirritating and hypoallergenic.[2]

For acne, prescribe pHisoHex—and get improved results.

pHisoAc® Cream dries, peels and masks lesions. Use it with pHisoHex washings to help prevent comedones, pustules and scarring. Contains colloidal sulfur 6 per cent, resorcinol 1.5 per cent and hexachlorophene 0.3 per cent.

pHisoHex is available in unbreakable squeeze bottles of 5 oz. and 1 pint—and in combination package with pHisoAc Cream.

1. Hodges, F. T.: *GP* 14:86, Nov., 1956.
2. Guild, B. T.: *Arch. Dermat.* 51:391, June, 1945.

Winthrop LABORATORIES
New York 18, N.Y. (1665M)

Schering

halves the dosage requirements in most cases of ringworm

new fulvicin-U/F™

brand of griseofulvin, ultra-fine

improved, ultra-fine form–new 125 mg. tablet–for greater patient economy

3 times greater surface area → *Improved absorption* → *Higher blood levels* → *Greater efficiency*

Supplied: FULVICIN-U/F Tablets, scored, 125 mg., 250 mg. and 500 mg., each in bottles of 60 and 250 tablets. For complete details, consult latest Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Bloomfield, New Jersey.

5-977

triples the particle surface area







"Treatment results were good, and in many cases a dramatic response was noted. Many of the cases had previously failed to respond to various types of therapy including, in some instances, other topical corticosteroid preparations."

—Gray, H. R., Wolf, R. L., and Doneff, R. H.: Evaluation of Flurandrenolone, a New Topical Corticosteroid, Arch. Dermat., *84:*18, 1961.

A look at the products—Cordran cream and ointment are new corticosteroid preparations especially formulated for the skin. Each Gm. contains 0.5 mg. Cordran.

Cordran™-N cream and ointment combine Cordran and the wide-spectrum antibiotic, neomycin. Each Gm. contains 0.5 mg. Cordran and 5 mg. neomycin sulfate (equivalent to 3.5 mg. base). Cordran-N is particularly useful in steroid-responsive dermatoses complicated by potential or actual skin infections.

All forms are supplied in 7.5 and 15-Gm. tubes.

Cordran™-N (flurandrenolone with neomycin sulfate, Lilly)
This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana. 240241

Lilly
QUALITY/RESEARCH/INTEGRITY

JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION
August, 1962, Vol. III, No. 8

ORIGINAL PAPERS

Coarctation of the Aorta: Review of the Clinical Problem With Illustrative Cases

WATTS R. WEBB, M.D., and JAMES D. HARDY, M.D.
Jackson, Mississippi

The clinical problem of coarctation of the aorta is briefly reviewed including the more significant factors in diagnosis, complications, and treatment.

EVEN THOUGH COARCTATION of the aorta was recognized 200 years ago by Morgagni, the diagnosis was only of academic interest until Crafoord[1] in 1944 and Gross[2] in 1945 independently developed surgical techniques for its correction.

The more common "adult" type of coarctation consists of a sharp, localized constriction of the descending arch of the aorta close to the insertion of the ductus arteriosus. The so-called "infantile" coarctation is a narrowing, involving much of the transverse and/or descending arch of the aorta with the patent ductus arteriosus opening into a normal caliber distal aorta. This latter form is often associated with intracardiac anomalies to present a very grave prognosis and limited possibilities of surgical correction.

During the past five years we have operated on seven patients with various types of "adult" coarctation. While coarctation is considered to be one of the more common cardiac anomalies, comprising about 6 per cent of Abbott's series,[3] we have seen relatively few. During the same period of time over 400 major cardiovascular operations were performed, including some 60 operations for patent ductus arteriosus which ordinarily comprises 17 per cent of congenital anomalies. Coarctation affects males three times as frequently as females and in our series there were five males to two females.

From the Department of Surgery, University of Mississippi School of Medicine.

RECOGNITION OF COARCTATION

Coarctation of the aorta is one of the easiest of all abnormalities of the cardiovascular system to recognize, requiring only blood pressure recordings and palpation of the pulses in the four extremities. An elevated blood pressure in the arms coexistent with a low pressure in the legs is absolute evidence of a block in the aorta itself or in the iliofemoral outflow tracts. Electrocardiograms, in virtually all instances, will show a left ventricular preponderance as it did in all seven of our cases. The chest x-ray will show notching of the inferomedian border of the ribs even at an early age. One of our patients, an 11-year-old girl, did not have rib notching although four other children —7, 8, 10 and 11 years of age—did have demonstrable rib notching. The cardiac silhouette will usually show enlargement, particularly of the left

ventricular chamber; the aortic knob will be less prominent, and the barium-filled esophagus will demonstrate an "E" sign of its left border. Aortography is rarely necessary but should be performed when the murmur is atypical or x-ray findings are not typical for constriction of the aorta at the usual site. Occasionally, coarctation may occur

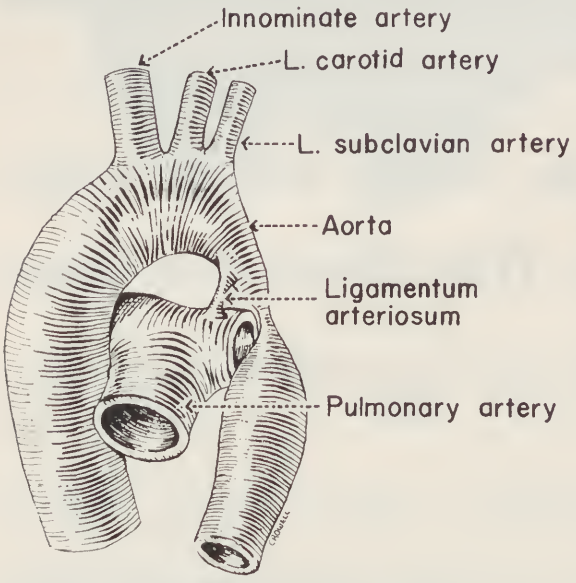


Figure 1. Sketch of "converted adult" coarctation found in a 19-year-old man. This is a transitional type of coarctation intermediate between the infantile and adult forms. The long hypoplastic segment makes direct reapproximation difficult and hazardous.

just above or even below the diaphragm. A systolic murmur can usually be heard anteriorly over the upper precordium, but often is best heard posteriorly in the left interscapular space. In addition, prominent pulsations of the hypertrophied collateral circulation such as the subscapular and descending scapular vessels are often palpable.

INDICATIONS FOR OPERATION

The "infantile" type of coarctation may require corrective surgery during infancy, but the mortality rate is quite high. Since most of these patients can be managed with medical therapy during this difficult period of the first year of life, surgery is avoided whenever possible. Utilizing this philosophy, we have found no need for corrective surgery on any infant, though several such cases have been evaluated.

The studies of Reifenstein, Levine, and Gross[5] have shown that the average age of death of patients with "adult" coarctation is in the 30's, with a life expectancy of about half that of the normal population. Most of the complications occur after the second decade, such as progressive hypertension with cardiac failure, cerebrovascular accidents, aneurysmal dilatations of the aorta or its intercostal branches, or subacute bacterial endoarteritis. Nonetheless, two of our patients had experienced cerebrovascular accidents, one child having a right-sided stroke at the age of 11, and another having transient right paraplegia at the age of 3. The optimal age for surgical correction was formerly generally accepted as between 10 and 14 when the size of the vessels has sufficiently approached that of the adult aorta so that future growth is a minimal consideration, but before marked arteriorsclerotic changes of the vessels have occurred. As it has been well demonstrated that anastomoses can grow,[6, 7] and in view of the frequent occurrence of complications in early childhood, the operation is now being recommended in the earlier age groups.

TECHNICAL CONSIDERATIONS

In six of the seven patients, an end-to-end anastomosis was accomplished satisfactorily with restoration of an essentially normal lumen. The remaining patient, a 19-year-old man, had what has been classified as a "converted adult" coarctation.[8] The coarctated segment started just distal to the left subclavian artery and measured over 3 cm. in length with absolutely no lumen at one point (Fig-

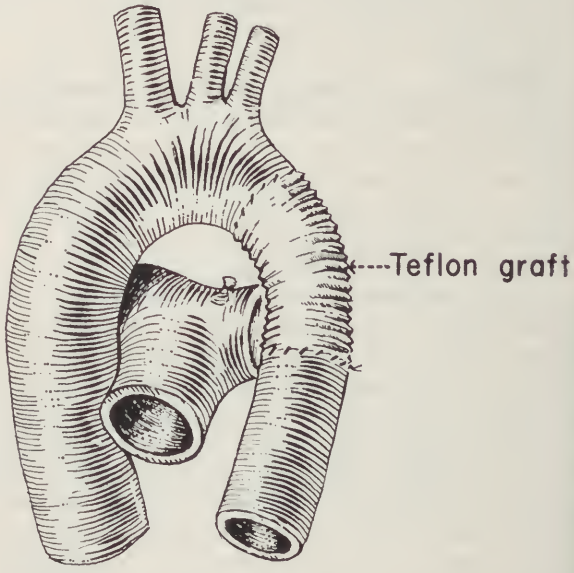


Figure 2. Sketch of operative correction utilizing Teflon graft.

ure 1). The ductus arteriosus was found to be closed and all collaterals were extremely large with the internal mammary artery being over 1 cm. in diameter. In this instance a Teflon graft was inserted for satisfactory restoration of continuity (Figure 2).

Five of the patients had an associated patent ductus arteriosus, the largest having a lumen over 5 mm. in diameter. The other patient with a closed ductus arteriosus was an 8-year-old girl in whom the right subclavian artery originated at the site of the coarctation, and passed behind the trachea and esophagus to the right arm (Figure 3). It had been noted in the preoperative work-up that the blood pressure in the right arm was only 114/90 while that in the left was 134/90. At operation, the right subclavian artery was reanastomosed into the side of the large left subclavian artery and the aorta was reanastomosed end-to-end (Figure 4). Postoperatively, the blood pressure in both

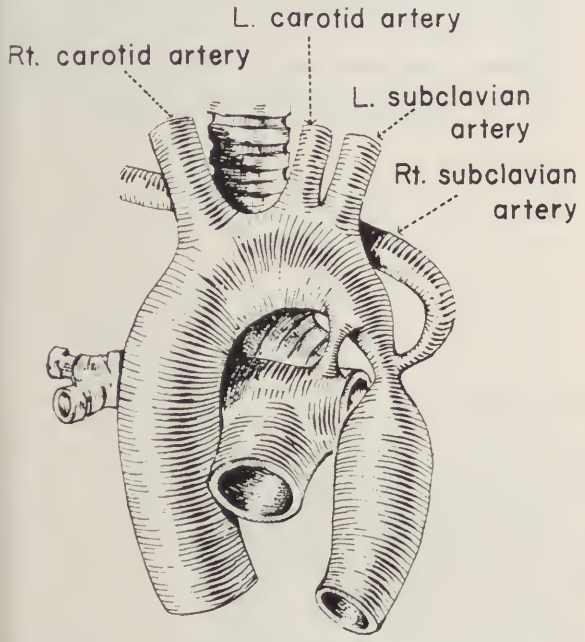


Figure 3. Sketch of the right subclavian artery originating as the last vessel of the arch at the site of coarctation. The aberrant retroesophageal vessel in some instances produces symptomatic esophageal compression.

arms has fallen to 105/75 while in the legs it has risen to 130/90.

In reviewing the pathology of the lesions, none demonstrated a lumen greater than 3 mm. at the site of the coarctation (Figure 5), and two had total stenosis. In addition, specimens from chil-

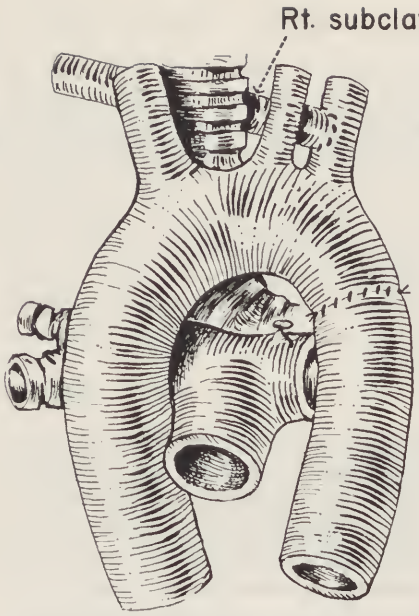


Figure 4. Sketch of connective procedure. While the subclavian can be divided at its origin without fear of early circulatory impairment, the possibility of symptoms later in life with advancing arteriosclerosis suggests that it should be reanastomosed whenever possible.

dren as young as 11 years showed very marked arteriosclerotic changes emphasizing the role of hypertension in the pathogenesis of arteriosclerosis.

COMPLICATIONS

There have been no deaths or major complications. Two of the seven patients experienced an early hypertension immediately after operation; both of these, plus a third patient, showed abdominal pain in the early postoperative period.

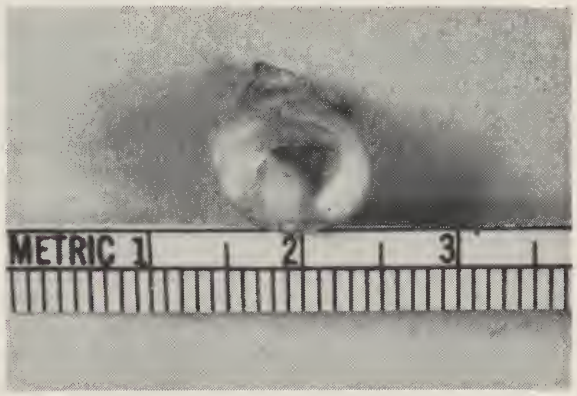


Figure 5. Photograph of resected specimen showing the marked narrowing of the aortic lumen.

This is thought to be related in part to the increasing pressure and pulsation within the abdominal vessels which previously had been subjected to only minimal pressures. Others have reported operating on such patients with a tentative diagnosis of appendicitis or other abdominal catastrophes and found only a vasculitis, although occasionally patients have shown actual rupture of visceral vessels.[8, 9] All of our patients responded quite well to antihistaminics and Serpasil to lower the blood pressure.

FOLLOW-UP

All of these patients have shown a very marked decrease in the blood pressure in the arms particularly of the diastolic pressures. In only one subject was it possible, preoperatively, to obtain a blood pressure in the legs, though in two it was possible to demonstrate some pulsations by oscillometry. Postoperatively, all have shown pressures in the legs slightly higher than that in the arms, as would be expected in normal circulatory dynamics. ★★★

2500 North State Street

REFERENCES

1. Crafoord, C., and Nylin, G.: Congenital Coarctation of the Aorta and Its Surgical Treatment, J. Thoracic Surg. 14:347, 1945.
2. Gross, R. E.: Surgical Correction for Coarctation of the Aorta, Surgery 18:673, 1945.
3. Abbott, M. E.: Coarctation of the Aorta of the Adult Type. II. A Statistical Study and Historical Retrospect of 200 Recorded Cases with Autopsy, of Stenosis or Obliteration of the Descending Arch in Subjects above the Age of Two Years, Am. Heart J. 3:574, 1928.
4. Freundlich, E.; Engle, M. A.; and Goldberg, H. P.: Coarctation of Aorta in Infancy. Analysis of a 10-Year Experience with Medical Management, Pediatrics 27:427, 1961.
5. Reifenstein, G. H.; Levine, S. A.; and Gross, R. E.: Coarctation of the Aorta, Am. Heart J. 33:146, 1947.
6. Moss, A. J.; Adams, F. H.; O'Loughlin, B. H.; and Dixon, W. J.: The Growth of the Normal Aorta and of the Anastomotic Site in Infants Following Surgical Resection of Coarctation of the Aorta, Circulation 19:338, 1959.
7. Sauvage, L. R., and Harkins, H. N.: Growth of Vascular Anastomoses. An Experimental Study of the Influence of Suture Type and Suture Method With a Note on Certain Mechanical Factors Involved, Bull. Johns Hopkins Hosp. 91:276, 1952.
8. DeBoer, A.; Grana, L.; Potts, W. J.; and Lev, M.: Coarctation of the Aorta, A.M.A. Arch. Surg. 82:801, 1961.
9. Schuster, S. R., and Gross, R. E.: Surgery for Coarctation of the Aorta: A Review of 500 Cases, J. Thoracic and Cardiovascular Surg. 43:54, 1962.

THE BUSSING BAN

The Soviet Union has finally bestowed a reluctant kiss of approval on public displays of affection. Reason: The dismal failure of an all-out anti-Cupid campaign by an ambitious Red female Director of Culture. To discourage kissing on park benches in the Ukraine, Culture Department attachés were ordered to post signs reading "Citizens Take Care! Influenza is an infectious disease, transmitted by kissing and hand-holding!" and "Heart attacks, tuberculosis, cancer and many other illnesses are transmitted by kissing." The grand result of the effort was that park-bench kissing increased sharply. The lady culture director, one Anna Ivanovna Kukushkina, is now being ridiculed by cartoons in state-run magazines. . . .

Fads and Fancies in the Treatment of Arthritis

RUSSELL L. CECIL, M.D.
New York, New York

The author, who is best known for his famous Textbook of Medicine, *first published in 1926, discusses the various fashions in the treatment of rheumatoid arthritis over the past 50 years. Beginning with the hydrotherapy of the ancients he goes through the eras of focal infection and vitamins winding up with the present day use of gold salts and steroid therapy. Dr. Cecil, a pioneer in the treatment of arthritis, established one of the first arthritis clinics in the country in 1922 and was one of the first physicians in the United States to use gold salts some 25 years ago.*

MEDICINE, SINCE IT BEGAN, has advanced in definite stages or eras. Each era has had its popular theories and forms of treatment, just as there have been certain styles in clothing, in architecture and so on. Nowhere has this been more true than in the field of arthritis and rheumatism.

Arthritis was common even in the early stages of civilization, such as that in Egypt, and much work has been done on the incidence of arthritis in Egyptian mummies. In Roy L. Moodie's monograph on the palaeopathology of Egypt, this writer has a chapter on the interesting subject of arthritis in mummies. The spine was often the seat of chronic arthritis, usually of the osteoarthritic type, and varied from slight overlipping of bone to complete ankylosis, sometimes accompanied by lesions of the sacro-iliac articulation, and in the long bones of the lower extremities, occasionally in the bones of the upper extremities. The author notes that complete or partial ankylosis of the sacro-iliac articulations are presumably caused by the same disease as the spondylitis deformans. This of course sounds like Marie-Strumpell disease, but there is undoubtedly a great deal of osteoarthritis in the process. We know very little about the treatment of arthritis as conducted by Egyptian physicians; it is safe to assume, however, that a great deal of it was in the form of hydrotherapy.

Dr. Wood Jones did a monograph on arthritis in Egyptians, and says: "The present inhabitants of Nubia are afflicted with arthritis, and among the modern Egyptians also the signs of osteoarthritis frequently occur. It is probable that the disease is associated with the country of the Nile Valley and the mode of life of its population. Every member of the riverside population has it as his birthright that a great part of his whole life shall be spent dabbling in the water of the Nile, even at those times cold, which are not at all uncommon during the Nubian winter. It may be this exposure, which the alternate wetting and drying in a climate which may be of severe cold or intense heat, that has produced and is producing this remarkable frequency of osteoarthritic changes in these people."

Hippocrates was familiar with arthritis and has written regarding its treatment, chiefly again by hydrotherapy, and his baths were famous all through Greece at the time of his fame. Hydrotherapy also constituted the chief form of treatment in the Roman baths, and this popularity of hot water therapy gradually extended all over Europe and persists at the present time.

It is interesting what tradition means to doctors as well as to laymen. There is a strong tradition for spa therapy in Europe and in Great Britain, and, of course, some of this enthusiasm for water treatment has traveled to America. However, American doctors have never taken to spa therapy in the way the English and European doctors have. We believe in the value of heat, and also of hot water, but we hardly look upon it as a curative agent.

Consulting Medical Director, The Arthritis and Rheumatism Foundation.

Read before the Section on Medicine, 94th Annual Session, Mississippi State Medical Association, May 7-10, 1962.

FADS AND FANCIES / Cecil

William Shakespeare once described "The Seven Ages of Man." Applying this to the relatively short 50-year history of theories regarding the treatment of arthritis, we can paraphrase Shakespeare and speak of "The Seven Ages of Arthritis."

To understand the arthritis picture today, let us review the various theories and treatments of different periods. We will find also that the promotors of quack treatments have picked up many of the discarded and disproven beliefs of former eras and continue to use them to victimize arthritis sufferers today.

THE DARK AGE

The first age, we'll call "The Dark Age" or "The Do Nothing Era." This covers the pre-1900 period. Arthritis was just as prevalent then as it is today. However, doctors and research workers were completely absorbed with the great infections and killers, such as tuberculosis, typhoid, diphtheria, and pneumonia. For arthritis suffers there were no clinics, no home care. Not only was there no research of any kind; there were not even any medical school courses on the subject. There were, however, plenty of patent medicines around claiming to "cure" arthritis. Most of the brand names of those days have disappeared but the formulas remain. The Food and Drug Administration and other federal agencies attempting to stop today's fraudulent distribution of products, find many of them contain these "Dark Age" ingredients.

Gadgets of all kinds were plentiful during this period. Many of them, in modified forms, are still being sold to today's arthritis sufferers. Among the high-sounding and high-priced were the Calozone Generator which cured nothing and could be very harmful, and the Radon Bell, which sold for $750 and had the same radioactivity as the radium dial of a watch. There were and are many more, just as expensive and just as useless.

ERA OF MILD INTEREST

The second age, or "The Era of Mild Interest" lasted until about 1912. During this period ethical physicians were becoming interested in arthritis and rheumatism and began trying out various theories and treatments. Because of lack of research and real understanding of the disease, many of these treatments were far-fetched and subsequently were proved worthless or of temporary value.

For example, colonic irrigation had a great vogue during the early 1900's. Dr. Garfield Snyder, a well-known New York physician, claimed to have cured arthritis with this treatment. While it proved to be of no value as a "cure" or treatment for arthritis 50 years ago, many so-called "clinics" still advertise its beneficial effects not only for arthritis but many other diseases and ailments.

Another New York doctor read that bee stings had been known to cure rheumatism. He began treating his arthritic and rheumatic patients by actually exposing them to honey bees until they were thoroughly stung. This fad soon disappeared. However, today we still find the advertising of some quack operators passing off bee-sting venom as an effective treatment.

The electric cautery was tried by some physicians, but proved to be not only useless, but dangerous in the hands of an unskilled operator.

The baking oven, used then, is still a nice, convenient way of using dry heat which temporarily relieves the pain in some types of arthritis. However, it rarely alters the actual course of the disease.

FOCAL INFECTION AND VACCINE ERAS

The third age, "The Focal Infection Era," in the beginning created great excitement throughout the medical profession. A prominent professor of medicine in Chicago, Dr. Frank Billings, touched it off in 1913 with a paper that called focal infection the cause of rheumatoid arthritis.

Thus started the famous era of wholesale removal of infected teeth, tonsils, sinuses, and other infected parts of the body. While such removals did produce temporary relief in a small number of cases, the long-term course of the disease was in no way affected. This era was particularly hard on children. If there was any sign of rheumatic fever, the child's tonsils were immediately removed. An extensive study of this treatment made in Chicago and Detroit found that the incidence of rheumatic fever was not affected by the removal of tonsils. Today tonsils are only removed if they are large and definitely infected, a condition which could possibly result later in deafness. The whole theory and practice of focal infection has now largely disappeared from the arthritis picture.

As late as 1940, however, the medical profession was still struggling with the idea that arthritis was an infectious disease of some sort. The theory this time centered on streptococcus infections and produced the "Vaccine Era," which ran from about 1925 into World War II.

Patients were injected with streptococcus vaccines made from their own bacteria or that of other rheumatic disease victims. The idea, of course, was to stimulate the body to produce antibodies against these germs. Unfortunately, however, experiments proved that, while antibodies might be formed, they had no effect on rheumatoid arthritis. Streptococcus or other infections simply did not cause the disease.

Despite this knowledge, we have the spectacle today of "immune milk," made by injecting streptococcus and staphylococcus vaccines into cows' udders until they produce antibodies in their milk. While it is claimed by its promoters as a "cure" for rheumatoid arthritis, it is of absolutely no value.

While these vaccines did not affect the disease, they did often produce fever. This fit in nicely with another popular treatment of the day—fever therapy. The aim here was to run up a fever by injecting the patient with vaccines made from such things as typhoid fever germs. The hope was that, in fighting the fever, the body mechanism would change sufficiently to end the rheumatic disease. Sometimes the course of the disease was moderated for a time, but that was all.

VITAMIN AND GOLD ERAS

During the Fifth Age, or "Vitamin Era," beginning about 1935, many doctors tried to change the course of rheumatic diseases by administering vitamins. At first, the vitamins were given in crude forms such as cod liver oil, yeast, or tomato juice. Later the concentrated vitamin extracts were prescribed in pill or capsule form. It was shortly discovered, however, that neither method had the slightest effect on the disease itself. Vitamins, of course, are still administered to many patients but only to build up a rundown condition, not as a "cure" for arthritis.

Of all the vitamins, Vitamin D was the most widely used and was prescribed in large doses. This particular fad went out quickly because of the dangerous and sometimes fatal effects it produced. The vitamin era, however, is still very much with us according to the nostrum vendors. Combined with aspirin or other pain relievers, it is still being exploited today as a "cure" for rheumatic ailments.

The 1930's also saw the Sixth Age, or the "Gold Era." After being temporarily abandoned when the steroids first appeared, gold has had a come-back and is still an important weapon in modern arthritis clinics.

At first gold was given in too large doses, with resulting uncomfortable rashes and anemia. However, with standardization of the dosage and careful administration, gold has changed the course of rheumatoid arthritis for many patients. It is important to note, however, that rheumatoid arthritis is the *only* form of rheumatic disease for which gold is prescribed.

STEROID ERA

The discovery of cortisone about 10 years ago ushered in the Seventh Age, or "Steroid Era." Steroids are a group of compounds similar in chemical structure to cortisone and to some hormones produced in the body by the adrenal glands. When Dr. Philip Hench made his report on the remarkable relief cortisone gave in rheumatoid arthritis at the Mayo Clinic, many doctors thought a cure had at last been found. Dr. Hench never claimed cortisone was a "cure" but that it was an agent of remarkable characteristics and worth further research.

Research on cortisone itself has produced modifications and refinements such as hydrocortisone, prednisone, prednisoline, methyprednisolone, triamcinolone, dexamethasone and others. The latter is the most potent of the new steroids and can be administered in very small doses.

Unfortunately, research has not eliminated all the dangerous complications caused by the steroids. Besides being habit-forming, they can produce such severe side effects as stomach ulcer, osteoporosis with spontaneous fractures, and acute mental depression.

Most doctors today use steroids only when the patient has very severe pain and hot swollen joints, or after gold treatment has failed. Also, more conservative methods such as bed-rest, physical therapy, hospitalization and heat are usually fully explored before steroids are prescribed. Despite their limitations, the steroids have a definite place in today's treatment of rheumatoid arthritis.

AGE OF EXPLORATION

We might now continue our presentation beyond Mr. Shakespeare's seven ages. We are well into the most exciting, and we hope, most rewarding era in the fight against arthritis. This then is the Eighth Age, the "Age of Exploration." Never before have so many scientists, clinical investigators and physicians been probing for the cause and cure of the rheumatic diseases.

Such basic sciences as pathology, epidemiology, genetics, biochemistry, physiology, and enzymology are all being explored in this research drive

to find the final answer to arthritis—and, until that ultimate goal is reached, in seeking and developing new treatments for relieving the misery of the millions who suffer from this painful and crippling disease.

No possibility is being overlooked by the Arthritis and Rheumatism Foundation to support worthwhile research projects and clinical investigations. The Foundation awarded 45 Fellowship grants this year for study in many different fields. These include connective tissue, target of the disease, and the "rheumatoid factor," found in the blood of rheumatoid arthritis victims. Most chapters of the Arthritis and Rheumatism Foundation are contributing to the "Era of Exploration" by grants-in-aid to hospitals, clinics, medical schools, and other institutions.

The "Age of Exploration" must continue and expand. To accomplish this, the Arthritis and Rheumatism Foundation will continue to rely on the American public's voluntary aid and support. Progress *is* being made and no one doubts the ultimate success of these efforts.

So far I have dealt almost entirely with ethical fads and fancies which have interested the medical profession over the years. This is a perfectly legitimate method of making progress in the treatment of a very difficult disease. When we speak of quacks and nostrums, however, we are dealing with a very different form of treatment, and one which is practiced not by physicians, but by vendors of fake cures of various kinds which have only one goal, and that is the making of money out of credulous victims of arthritis and rheumatism. The Arthritis and Rheumatism Foundation has declared war on quack remedies for arthritis. We are working in close association with the Food and Drug Administration in Washington, D. C., and other federal agencies for detecting frauds in the advertising of drugs. We hope by this movement to educate the public and warn them against falling for these useless agents.

The treatment of arthritis is difficult at all times, but patients will do far better if they stick to the medical profession instead of listening to all sorts of false and misleading advertisements regarding the wonderful curative power of this or that fake remedy—most of which are nothing more than an expensive form of aspirin. ★★★

449 East 68th Street

CAVEAT AUCTOR

The editor of the erudite *New England Journal of Medicine* says that all papers contributed to a medical journal fall into three categories:

Category I: Papers which will unquestionably be accepted for publication unless they are subsequently rejected.

Category II: Papers which will unquestionably be rejected unless they are subsequently accepted.

Category III: Papers on which there may be some discussion among the editors.

Suggested Guides for Use of Gamma Globulin as a Prophylaxis With Respect to Hepatitis

DURWARD L. BLAKEY, M.D.
Jackson, Mississippi

Recognizing that differences of professional opinion exist with respect to the use of gamma globulin in prophylaxis of persons exposed to infectious hepatitis, the association asked the Mississippi State Board of Health to conduct studies in this connection. These studies, which are embodied in this paper, were approved by the House of Delegates at the 94th Annual Session.

Evidence suggests that dosage levels previously recommended for household exposures are sufficient.

THE LITERATURE IS REPLETE with reports by numerous investigators of their studies of prophylaxis of persons exposed to infectious hepatitis with various dosages of gamma globulin. In response to many requests for clarification of the policy of the Mississippi State Board of Health in its plan for distribution of gamma globulin, including recommended dosage, selected pertinent information is presented.

Ward, Krugman and Giles summarize their experiences with a continuing hepatitis outbreak in a New York institution:

> "The dose of gamma globulin we recommend is 0.06 ml/lb body weight. From the experience of others, it appears that smaller amounts, such as 0.02 ml/lb body weight, is effective."[1]

These same authors reported significant variation in protection conferred at the level of 0.06 ml/lb over that of 0.01 ml/lb, the higher level conferring protection at ten to thirty times that of the lower level.[2] The same issue carries an editorial to the effect that 0.06 ml/lb body weight is established as the dose minimum of choice because this level is the lowest which conveyed protection to the attendant (adult) personnel.

It is significant to note here that the findings reported in the latter instance are very similar to those made in the *Red Book* of the American Academy of Pediatrics wherein the dosage recommended for children is distinguished from that for adults for the first time.[3] The dosage recommended for adults amounts to two and one-half times more than the dosage recommended for children. In any event, nothing in the subject study or the recommendations derived therefrom can be the basis for equating the circumstances within an institution with the more than ten years of successful experiences widely reported by state health departments, including Mississippi's, on prophylaxis in the general population at lower dosage levels. Furthermore, the recommendations cited for higher dosage levels for adult protection are inconsistent with the generally accepted ecology of the disease.

Gross, Gitlin and Janeway, in their definitive survey of the clinical significance of the gamma globulins, point out that:

> ". . . at least 40 per cent (of all adults) have immunity, as judged by skin tests, to infectious hepatitis, but the infrequency of this disease in adults over 30 suggests that inapparent infection and immunity are much more frequent than this figure."[4]

These same authors draw conclusions to the effect that:

(1) "Protection against infectious hepatitis can be achieved with a dose as low as 0.01 ml/lb body weight, given within seven days before onset of

Approved by the House of Delegates, 94th Annual Session, Mississippi State Medical Association, May 7-10, 1962.

From the Division of Preventable Disease Control, Mississippi State Board of Health.

symptoms . . . it should probably be given within 14 days after exposure."

(2) "The higher attack rate of hepatitis among untreated children, as compared to untreated adults, is due to the lower prevalence of immunity acquired through clinical and subclinical infection in the younger age groups."

(3) "The proper dosage for attenuation has not yet been clearly defined, but there is promising evidence that as little as 0.005 ml/lb body weight, which is half the dose for complete prevention, will modify the disease and yet allow active immunity to develop."

The successful experiences of various state health departments show that dosage levels of 0.005 to 0.02 ml/lb body weight within the general population have been effective where the household contacts of cases were considered as exposed in circumstances analogous to exposure within the institutions studied. In the California study, small doses (0.01 ml/lb body weight) of globulin were as effective for adults as were the much larger doses (0.06 ml/lb body weight) reported for protection of adults in institutional outbreaks.[5]

Stokes and Neefe first reported studies on the usage of globulin in institutional outbreaks at dosage levels ranging from 0.15 ml/lb body weight down to 0.005 ml/lb body weight. Their observations indicated that the lesser dosage was as effective as the larger.[6]

Gellis and McComb, in referring to the Krugman report previously cited and on which a dosage of 0.06 ml/lb body weight was recommended, comment as follows:

> "We firmly believe that 10 years' experience should not be abruptly discarded on the basis of a single clinical trial. . . . The Krugman lot (of globulin) in question was not made by the Cohn method (cold ethanol process). To our knowledge, this is true of no other commercial source of gamma globulin."[7]

They go on to point out that only the cold ethanol process of Cohn gives consistent potency from one lot to another.

It would, therefore, appear that the rationale remains to be established for a departure from the long-established practice of the Mississippi State Board of Health in recommending a dosage range of 0.005 ml/lb to 0.02 ml/lb body weight and a distribution plan based on 0.01 ml/lb body weight (with a maximum allowance of 2 ml/pt where weight exceeds 200 pounds) for all household contacts of infectious hepatitis. ★★★

2423 North State Street

REFERENCES

1. Ward, R.; Krugman, S.; and Giles, J. P.: Etiology and Prevention of Infectious Hepatitis, Postgrad. M.J. 28:12 (July) 1960.
2. Krugman, S.; Ward, R.; Giles, J. P.; and Jacobs, A. Milton: Infectious Hepatitis, J.A.M.A. 174:823 (Oct. 15) 1960.
3. Report of the Committee on the Control of Infectious Diseases, Evanston, Ill., American Academy of Pediatrics, 1961.
4. Gross, Paul A. M.; Gitlin, David; and Janeway, Charles A.: The Gamma Globulins and Their Clinical Significance, New England J. Med. 260:173 (Jan. 22) 1959.
5. Clark, William H.; Beck, M. Dorothy; Edwards, Geraldine B.; and Drake, Robert M.: A Special Study of Infectious Hepatitis in the General Population of Three Counties in California, Am. J. Trop. Med. 9:639 (Nov.) 1960.
6. Eichenwald, Heinz F., and Mosley, James: Viral Hepatitis, Bulletin 435, United States Department of Health, Education and Welfare, Bureau of State Services, Public Health Service Communicable Disease Center, Atlanta, 1959, p. 24.
7. Gellis, Sydney S., and McComb, James A.: Massachusetts Department of Public Health, New England J. Med. 264:1267 (June 15) 1961.

POWER OF SUGGESTION

Pharmaceutical manufacturer's publication quotes a Pennsylvania physician who tried but failed to hypnotize a patient out of her smoking habit: "You couldn't call the experiment a total loss. I haven't smoked since."

SPECIAL ARTICLE

The Traffic of Tragedy

LAWRENCE W. LONG, M.D.
Jackson, Mississippi

WE LIVE IN AN ERA of remarkable enlightenment. We can unleash the power of the atom, orbit the earth, build electronic computers that do the work of a thousand minds, and travel across oceans in five hours. But P. T. Barnum was perceptive in his observation of American society because we're still suckers for the health quack.

As long as Americans pay $15 a gallon for sea water, swallow alfalfa pills to cure arthritis, and spend their earnings for spinal manipulations, then they must admit sophistry when they claim sophistication.

Medical science has earned its place in progress. Its capabilities today would fill a physician of a generation ago with disbelief. New hope and new life for once-fatal illnesses have become commonplace as the chemotherapeutic armamentarium grows and as the science of surgery extends its benefits to new fields.

Yet, the quack flourishes and some highly intelligent people are attracted to him. Perhaps it might be said that being victimized by a health quack is not, in itself, shameful. The sick are apprehensive and some believe what they want to believe. But it is unnecessary and dangerous to place human health in the hands of the phony practitioner. And it is always expensive.

The health fraud is always interested in the patient—not in his well-being but in his money.

If laws and enforcement agencies were the answer to fraudulent health care practices, then only competent medical practitioners would see sickness and injury. We salute the Food and Drug Administration, the Federal Trade Commission, the United States Public Health Service, and the several related state agencies for their effective work in combating quackery. Every day, they confiscate worthless—and even harmful—nostrums. They prosecute the mail fraud, the purveyor of worthless services in health care. They exhort the public to beware.

But they are not enough.

Like the legendary dragon's teeth once sown, quacks spring up two-fold to replace the one uprooted. People apparently like to be fooled, especially where their health is concerned. But strangely enough, many such victims return to competent medical care, recognizing their error in judgment. For some, the awakening is too late and the consolation, too little.

The cost of quackery in this advanced society of ours is more than a billion dollars a year. The nutritional frauds alone take $500 million annually with honey and vinegar, ocean kelp, royal bee jelly, sea salt, and homeopathic concentrations of mail-order vitamins. Eleven million arthritis sufferers in this nation are fair game for nostrum-makers and spine punchers. The bill for this flim-flam? A cool $250 million.

And if all the excess weight were removed by spurious reducing agents that they claim to remove, obesity would become a medical oddity with an incidence similar to smallpox and leprosy. The cancer quack, another highly successful charlatan, isn't always in a walk-up office on a back street. We have lived to see distinguished men advocate a secret formulary as a cancer panacea, making most unlikely company for the chiropractor down the street.

Obviously, we of medicine have not only an opportunity but a responsibility in halting this traffic of tragedy. In Mississippi, we are responding to this challenge but we can do more. In the recent

---

1961-62 President of the Mississippi State Medical Association.

Read before the House of Delegates, 94th Annual Session, Mississippi State Medical Association, May 7-10, 1962.

legislative effort to secure licensure and legality for the cult of chiropractic, we were neither hesitant nor reluctant to seize the initiative in what we knew was the course of duty.

SIX FALLACIES

Most physicians and many of our nonmedical friends understood our position but I discovered six popular fallacies while fighting the battle of House Bill 344:

(1) "We should control chiropractors."

Actually, this suggestion originates with the chiropractors themselves. This is the manner in which they have secured some degree of licensure in 46 states and the District of Columbia. There is no such thing as controlling chiropractors because of any degree of control reduced to a statute is also a degree of authority for the practice of the cult with the blessing of the state. No licensure at all is the most desirable of all possible circumstances and Louisiana, Massachusetts, Mississippi, and New York know it.

(2) "We should outlaw chiropractors."

It would be to the betterment of the public health but the sad fact is that we can no more outlaw the chiropractor than we can automobile dealers or jewelers. We can and do, however, prevent their entering the medical practice field. In the four states denying this cult licensure, they must operate as tradesmen. And significantly, there are far fewer chiropractors per population unit in Mississippi than in the states according them practice privileges. The fondest hope of the sincerely concerned physician is that all cults can some day be outlawed.

(3) "We should have a basic science law."

This is a favorite but a dangerous and useless device in a state with good medical practice laws. Begun in 1928, the basic science law was hailed as a miracle through which to insure greater competence in the practice of medicine and the filtering out of cultists. Much disillusionment has ensued. Essentially, this law requires examination in the basic sciences, usually at the conclusion of the second year of medical training or upon application for licensure by the cultist. But wherever a basic science law has been enacted, it has contained a grandfather clause, including the irregular with the regular. Today, most young graduates in zoology or the general sciences could pass a basic science examination. That, it goes without saying, doesn't make them doctors.

(4) "The main thing wrong with chiropractors is an educational deficiency."

And the chiropractors want that believed, too. They like to point to the 4,000 clock hour curricula in the cult factories. And their schools are just that, too, as we testified before the legislature. But if chiropractors went to school for 10 years, they would remain followers of a false, discredited dogma. Education has nothing to do with the claim to cure arthritis by punching the spine—especially the wrong kind of education.

(5) "There are some benefits to chiropractic."

Of course, Dudley LeBlanc got testimonials for Hadacol. We know more than ever about psychosomatic medicine and a little understanding sympathy for a fee may go a long way. Since science has demonstrated that nothing a chiropractor does can possibly benefit a patient in the elimination of disease, then his ministration of kindness is a misunderstood benefit.

(6) "Chiropractors don't bother me so why should I bother them?"

Tolerance can go too far. When you see a child bent backward with meningitis, 12 hours from death which did occur, who had been under chiropractic "treatment," then you'll be bothered. This was the experience of a Mississippi physician. Each doctor has seen the tragic results of the cultists' handiwork. Remember that chiropractic was devised in 1895 by a former grocer, that its premise is false, and that if it had any merit, it would have been discovered and accepted long before a ne'er-do-well tradesman, who was already a health fraud, claimed to have discovered it.

When we permit nonmedical individuals complete freedom to expose the living human body to radiation, to publish misleading claims to the public, and to prevail without opposition, then we fail our purpose as physicians just as surely as if we failed to respond to the call of the sick.

I believe that there is a special fire in hell reserved for the unconscionable predator upon human misery.

THE WEAPON OF TRUTH

If we as physicians intend to reaffirm our dedication to our patients, to science, to our state and its institutions—if we do not desire to make a mockery of our splendid University of Mississippi School of Medicine and its competent faculty—if we want to support the work of the State Board of Health, a creature of our creation, then we will be unremitting in our effort to inform the public, guide the sick, and assist in preserving the integrity of medical science to the benefit of all.

Warn patients of those who make unlimited claims in healing, who advertise their wares, who

make guarantees of cures, who offer secret remedies, who follow exclusive dogma, who claim persecution by the medical "monopoly," who produce testimonials, and who denounce medical and surgical care. Those, without variation or chance of error, are quacks of the first water.

We are not, as some have said, fighting defensively. In fact, it is we who choose the terms of the battle and it is we who possess the most effective weapon of all, the truth.

With this weapon, we shall someday make the cultist and the quack relics of an unfortunate past just as we shall forge ahead in making more and better medical care available to all members of society. ★★★

775 North State Street

CIGARETTES UNDER FIRE IN WEST GERMANY

Next government to light into the cigarette-health battle will be West Germany, whose militant female minister of health, Mrs. Elisabeth Schwartzhaupt, has decided to fight cigarette advertising with anti-cigarette advertising, sponsored by the government. Word from Bonn is that Mrs. Schwartzhaupt has drafted so stringent an anti-tobacco program that the result would be reduction of the Germany tobacco industry to the status of an ethical drug producer —run under strict government control and supervision. Major points in Mrs. Schwartzhaupt's strategy:

- Cigarette vending machines would be controlled as to numbers and locations in order to prevent patronage by school children (already forbidden by law to buy cigarettes in tobacco stores).
- Schools would be required to give pupils early, heavy, and prolonged anti-nicotine indoctrination.
- The government would contribute heavily to research investigating links between tobacco and diseases. The cigarette industry spends about $44 million annually for advertising; West Germany's Ministry of Finance collects about $1 million in taxes on cigarettes. The plan would involve using half that sum on an anti-nicotine campaign on billboards, advertising poles, and in the West German Press.
- Parents would be held liable for their children's infractions of anti-smoking laws.

Mrs. Schwartzhaupt, who holds a doctor of jurisprudence degree, is considered one of Germany's leading lawyers and brainiest women as well as Germany's sole woman minister (the Ministry of Health is a newly created government department), is a violent nonsmoker who is said to believe that liquor and tobacco are the roots of all evil—especially for women.

Radiologic Seminar IV: Colonic Diverticulitis

JACK K. GOODRICH, M.D.
Jackson, Mississippi

COLONIC DIVERTICULA are frequently observed during routine barium studies of the intestinal tract in adults, with the incidence as well as size and number of the diverticula showing an increase as age advances. Such diverticula may be encountered anywhere along the course of the colon, but they are most common in the sigmoid area and are usually multiple rather than single. They are acquired or false diverticula, lacking a muscular layer. They appear as small, flask-like sacs, usually .5 to 1.0 cm. in diameter, having a small, slit-like or round ostium which is considerably smaller than the diameter of the pouch.

Most commonly, these diverticula are incidental findings of no clinical significance. In the early stages of development, they may appear as fine

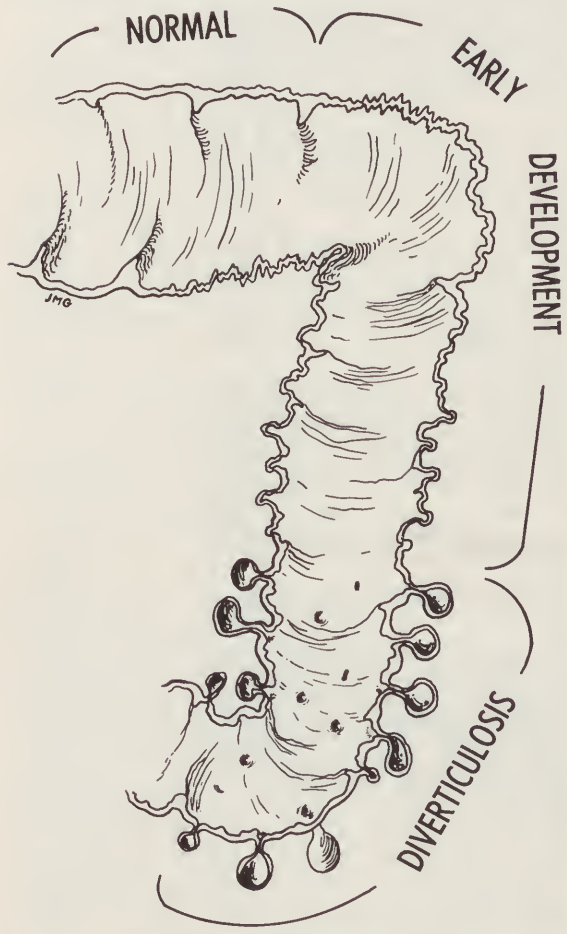


Figure 1. Composite diagram illustrating development of diverticulosis.



Figure 2. Film of acute diverticulitis.

Sponsored by the Mississippi Radiological Society.
From the Department of Radiology, University of Mississippi School of Medicine.

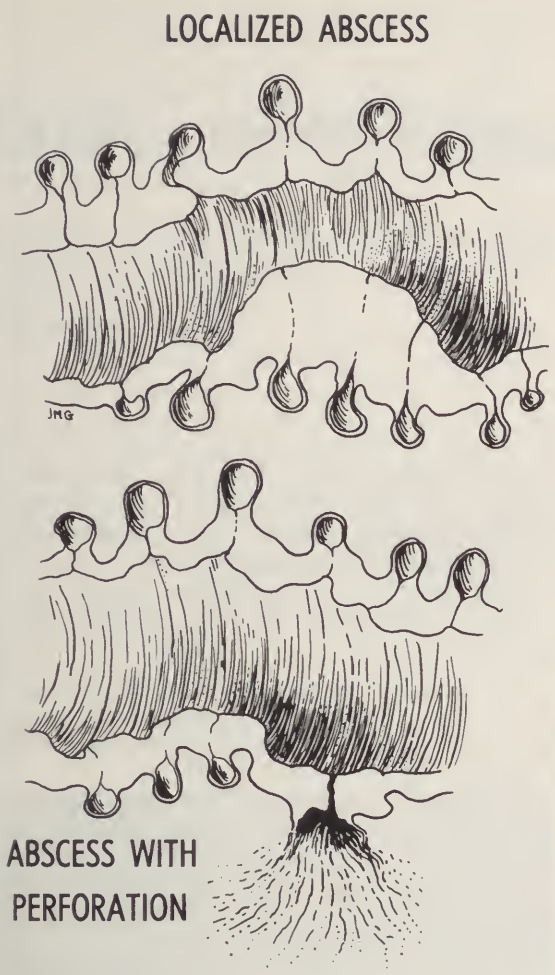


Figure 3. Above—Diagram of localized intramural abscess from one or more acutely inflamed diverticula. Note encroachment on bowel lumen. Below—Diagram of abscess perforating into peritoneal space.

spastic notches, either grouped on the summit of the haustral bulges or replacing these bulges (Figure 1). These are thought to be due to beginning herniation of the colonic mucosa through a defect in the bowel wall such as a vascular aperture. They most frequently develop along the mesenteric border of the bowel or into the epiploic appendages. The clinical entity of diverticulitis is well recognized. There is apparently no clear contraindication to the performance of a carefully administered barium enema in the presence of acute diverticulitis and the procedure is frequently indicated in the clinical work-up of such cases.

Early stages and patterns of acute diverticulitis may be sufficiently subtle to escape notice at barium enema examination and hence a negative study need not completely rule out the clinical diagnosis. There are, however, certain patterns which do permit the radiologic diagnosis. These include chiefly the finding of localized spasm and irritability of the involved segment, with direct tenderness over the area observed at fluoroscopy. On film the bowel lumen appears narrowed, the margins irregular and the mucosal pattern effaced or distorted (Figure 2). The involved diverticula may not fill, but usually adjacent diverticula are visible. When the inflammatory reaction in the bowel wall produces a mass of sufficient size, the bowel lumen may be encroached upon (Figure 3). A frank abscess may develop, and occasionally barium will enter into such a cavity and produce a characteristic pattern, as illustrated in Figure 3.

Acute diverticulitis may heal, leaving no gross residual radiologic changes. Repeated attacks of diverticulitis, often of a subclinical nature, may produce thickening and distortion of the bowel wall, giving the so-called "saw-tooth" pattern of the bowel seen on barium enema (Figure 4). This pattern is not in itself evidence of activity of the process. Here the determination of activity lies in

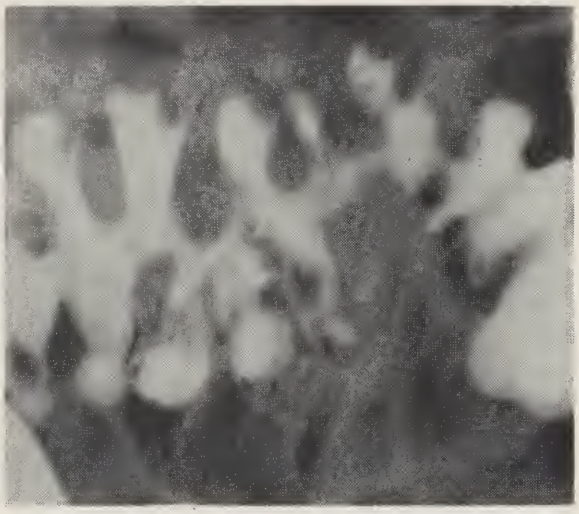


Figure 4. Film of chronic diverticulosis. Note typical "saw-tooth" pattern of bowel with a diverticulum at apex of each "tooth."

the clinician's history and physical findings supported by the observance of spasticity and irritability of bowel segments at time of fluoroscopy. Chronic cicatricial bowel changes may be difficult to differentiate from carcinoma of the colon, especially when an element of active diverticulitis is present. The co-existence of colon carcinoma and diverticulosis-diverticulitis has been well documented. The radiographic differentiation of this may be presented at a later seminar, however. ★★★

2500 North State Street

(*Turn to page* 394)

Clinicopathological Conference XXXI

Conducted by the Department of Pathology
Mississippi Baptist Hospital
Jackson, Mississippi

The patient in CPC XXXI is a 78-year-old white male who had suffered sore throat, loss of appetite, and inability to swallow for about a month prior to admission.

Discussers are Drs. Eugene Hesdorffer, Robert Henderson, Kenneth Heard, and J. M. Hudson.

THE PATIENT WAS a 78-year-old white male who was admitted on Aug. 17, 1961. His chief complaint was that he "just didn't feel good." For about a month he had suffered sore throat, loss of appetite, and inability to swallow. The difficulty in swallowing developed gradually. The history revealed that he had had a prostatectomy in August 1956 and a hernia repaired in September 1958.

The physical examination was unrewarding; however, a rash was noted on the scalp and face with some swelling about the left eye. Blood pressure, temperature, and respiration were within normal limits. The admission urinalysis was negative. The white count was 7,800 with 80 per cent segmenters, 17 per cent lymphocytes, and 3 per cent monocytes. Hematocrit was 38 volumes per cent, hemoglobin 15.7 gm. Blood chemistries were done. These revealed a CO_2 combining power of 23.5 mEq. per liter, chlorides of 107 mEq. per liter, a potassium of 5.5 mEq. per liter, and a sodium of 138 mEq. per liter. A BUN was 25 mg. per cent.

X-ray studies were done shortly after admission. The first of these consisted of a chest x-ray and the report read as follows: "Minimal to moderate generalized emphysema is present with fibrotic strands in both lung fields. The lungs are clear as far as evidence of active inflammatory disease. The heart is not enlarged. Apical pleural thickening is present on the right. A calcified shadow is seen in the left and at the right base, these shadows appearing stable, however."

Impression: Emphysema and fibrosis described is noted without any active disease being demonstrated.

The next x-ray study consisted of a barium swallow. The report read as follows: "There is demonstrated a large irregular filling defect in the proximal cervical esophagus. This obstructs the passage of barium almost completely. The length appears to be about 8 or 9 cm."

Impression: Carcinoma of cervical esophagus is believed to be present obstructing this esophagus. An esophagoscopy is advisable.

Accordingly, on Aug. 21, 1961, an esophagoscopy was carried out. The operative report stated that there was a very marked constriction of the lumen with granular tissue which could be seen distal to the point that the scope could be passed because of the constriction.

Pathological reports on the tissue submitted for study were as follows:

1. One fragment, benign hyperplasia of esophageal epithelium.
2. One fragment, muscle.

On Aug. 23, 1961, a gastrotomy was performed. The operative note stated "there was no evidence of intra-abdominal metastases or disease."

This man pursued a steady downhill course. Death occurred at 10:50 p.m. on Sept. 8, 1961.

Dr. Eugene Hesdorffer: "In discussing a case such as this, one must consider a differential diagnosis of obstructive lesions of the esophagus. A lesion compressing the esophagus should be considered, and this could include a substernal goiter, intrathoracic tumor, aneurysm, cardiac enlargement, or lymphadenopathy. Under the latter conditions one should think of leukemia, Hodgkin's and other malignant lymphomas, tuberculosis and mycotic infection. Enlargement of the left lobe of the liver may also cause obstruction of the lower esophagus.

"Benign and malignant neoplasms of the esophagus must be considered. Among the benign tu-

mors are leiomyomas, papillomas, and other rarer lesions including lipomas and fibromas. Of the malignant tumors, of course, the most common type is an epidermoid or squamous cell carcinoma. Rarer tumors are the so-called basal cell carcinoma and various types of sarcoma including leiomyosarcoma, lymphosarcoma, and fibrosarcoma.

"Nothing else in the protocol is particularly helpful. All of the laboratory admissions were within normal ranges.

"Since the pathological report stated that this was a benign lesion, one should also consider a fairly rare lesion described by Mosher as fibrosis of the esophagus, this occurring chiefly in the lower third of the esophagus. This is thought to be due to a chronic low grade infection either around or in the esophagus with the fibrosis being chiefly in the outer portion involving the adventitial and the outer muscular layer. Accompanying this fibrotic change are (1) obstruction and food stagnation, (2) dilatation, (3) hypertrophic muscular changes proximal to the lesion. Since the biopsy report was negative, I believe that this case might represent this or some lesion external to the esophagus causing compression."

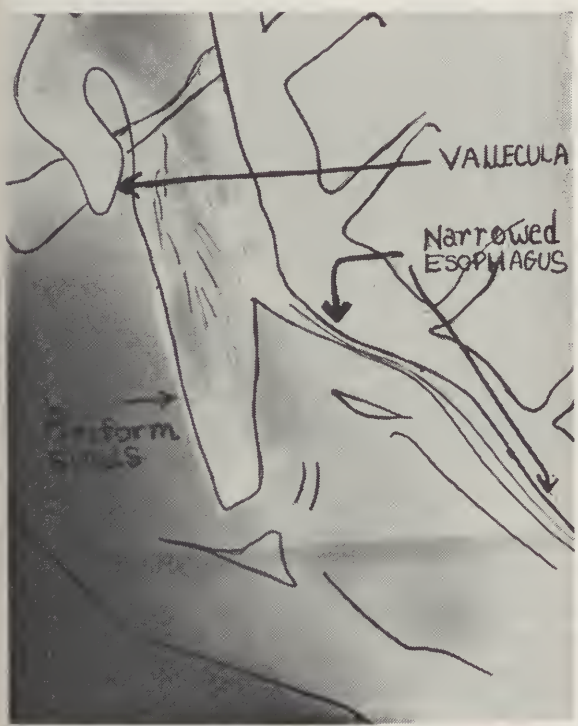


Figure 1. The constricting lesion of the esophagus involves the entire cervical esophagus. The mucosa appears to be intact in this narrowed esophagus. No soft tissue mass can be outlined. The valleculae are prominent and there appears to be some elongation of the pyriform sinuses.

Dr. Robert Henderson: "This esophagraphic study was relatively satisfactory in view of the patient's poor condition and his inability to swallow any significant amount of fluid. The films of the upper cervical esophagus showed prominent valleculae. There was an area of narrowing in the cervical esophagus measuring about 8 cm. in length. This was a persistent narrowing although the mucosa of the esophagus did not appear to show any frank ulceration. The esophagus below the level of the clavicles appeared to be normal. There was a slight amount of barium in the trachea on one film which is to be expected in any upper esophageal constricting lesion of this degree. There was no evidence of any tumor in the mediastinum or chest. The trachea was in midline. There was no evidence of substernal goiter."

Dr. Kenneth Heard: "On opening the upper esophagus during autopsy, I was quite surprised to find that the mucosa appeared perfectly smooth, and that there was absolutely no evidence of malignancy, since this was the suspected clinical diagnosis. Sections through this region showed some atrophy of the muscle tissue with slight increase in fibrosis and possibly a little chronic inflammatory reaction. In attempting to explain this case, we found described in the literature a condition called either "chronic esophagospasm" or "permanent occlusion" of the esophagus.[1] This occurs chiefly in the cricopharyngeal region and lower end of the esophagus. Microscopically two types have been described, one thought to involve the nerve plexus and the other a so-called interstitial type with atrophy and fibrosis as we have described in this case."

Dr. J. M. Hudson: "Why did the patient die?"

Dr. Heard: "The patient died of extensive bronchopneumonia. There was also a considerable degree of pulmonary emphysema present."

Dr. Hudson: "It is a rather common thing for people of this age who have difficulty in swallowing and other esophageal diseases to develop chronic pulmonary disease with emphysema and fibrosis. Frequently their complaints are chiefly related to the emphysema. It appears possible that during sleep there is some reflux with aspiration which promotes development of emphysema and ultimately bronchopneumonia."

DIAGNOSES: 1. Chronic esophagospasm (permanent occlusion of the esophagus).

2. Death due to extensive bronchopneumonia.

★★★

1190 North State Street

REFERENCE

1. Terracol and Sweet: Diseases of the Esophagus, p. 189. Saunders, 1958.



The President Speaking

'Hits, Runs, and Errors'

C. P. CRENSHAW, M.D.
Collins, Mississippi

THE 12-YEAR-OLD EDITIONS of Musial, Maris, and Mantle are slugging it out for the local pennants as community sponsored baseball for the youngsters hits the summer peak. Properly supervised and directed, the sport is valuable and beneficial to our children. Wholesome recreation, development of team skills, character growth, and the building of sportsmanship are musts for every boy.

Doctors are among the first to recognize loss of these basic values when the pressure to win at any price is put on the kids. While this rarely happens, many people have had much to say about "win fever" and some of this criticism has been so severe that the picture has been twisted and distorted unjustifiably. For the greater part, children's baseball is well run. As such, it's good for the boys, their parents, and the community.

Physicians have a double stake in these programs in their dual roles as professional people responsible for health care and as citizens. Perhaps this double interest and special qualification makes them ideally suited to advise and assist in junior organized sports.

Of equal importance with prompt and adequate treatment of sports injuries is their prevention. Here, the doctor teams up with the coach and parents. Each boy must be physically capable of meeting the demands of the game. His parents are, of course, responsible for his fitness to play but the physician makes the decision as to *fitness eligibility*. The coach is concerned with training, supervision, and the teaching of sportsmanship.

Values of such team sports are ultimately reflected in the man as well as in the child. But since children aren't adults, they should be encouraged, assisted, and supervised into balanced adulthood. Never should they be expected to perform on the baseball diamond or anywhere else as mature athletes. ★★★

Proceedings of the House of Delegates

94th Annual Session
May 7-10, 1962
Jackson, Mississippi

THE 59TH ANNUAL SESSION of the House of Delegates was convened during the 94th Annual Session of the Mississippi State Medical Association on May 7, 1962, in the Victory Room, Hotel Heidelberg, at Jackson, Mississippi, at 1:30 p.m. by Dr. Lawrence W. Long, President. The invocation was spoken by the Reverend Jerry Furr, Associate Pastor, Galloway Memorial Methodist Church.

After extending greetings and making prefacing remarks, Dr. Long presented the Vice Speaker of the House of Delegates, Dr. Howard A. Nelson, Greenwood, and Dr. B. B. O'Mara, Biloxi, the Speaker, who then assumed the chair. Dr. C. G. Sutherland, Chairman of the Reference Committee on Credentials, reported the presence of a quorum of registered and seated delegates in accordance with Section 3, Chapter V, By-Laws of the association.

APPOINTMENT OF TELLERS AND SERGEANTS-AT-ARMS

Joseph L. Guyton, Pontotoc
Tom H. Mitchell, Vicksburg
A. T. Tatum, Petal

ANNOUNCEMENT OF REFERENCE COMMITTEES

Reports of Officers and Board of Trustees
- Frank M. Davis, Corinth, Chairman
- A. V. Beacham, Magnolia
- W. E. Moak, Richton
- I. J. Newton, Greenville
- R. E. Shands, New Albany

Medical Practices
- G. Swink Hicks, Natchez, Chairman
- Van C. Temple, Hattiesburg
- George H. Martin, Vicksburg
- Paul B. Brumby, Lexington
- James T. Thompson, Moss Point

Miscellaneous Business
- James G. Thompson, Jackson, Chairman
- O. G. Eubands, Crystal Springs
- M. Q. Ewing, Amory
- Lamar Arrington, Meridian
- J. A. K. Birchett, Vicksburg

Credentials
- C. G. Sutherland, Jackson, Chairman
- Mal S. Riddell, Jr., Winona
- Victor E. Landry, Lucedale

Rules and Order of Business
- C. D. Taylor, Jr., Pass Christian, Chairman
- John G. Caden, Jackson
- T. K. Chandler, Tunica

REPORT OF THE REFERENCE COMMITTEE ON RULES AND ORDER OF BUSINESS

Your reference committee on Rules and Order of Business invites the attention of all delegates to Chapter V, By-Laws of the association, in which responsibilities and the procedural format of this House are prescribed. It will be the purpose of your committee to assist the Speaker and Vice Speaker in the orderly and expeditious conduct of all proceedings of this House.

Business of the House of Delegates is conducted in accordance with *Robert's Rules of Order, Revised* and we recommend that the Speaker and Vice Speaker prescribe the order of business so long as such order and agenda are compatible with the By-Laws and with formal custom and usage.

To insure proper recording of the transactions about to begin, it is recommended that all delegates recognized by the chair be required to identify themselves. We further recommend that unanimous consent of the House of Delegates be required for extending the privileges of the floor to any individual who is not a member of this House of Delegates or who does not otherwise have an official capacity in the association. It is recommended that the report of the Reference Committee on Credentials be accepted as the formal roll call and so recorded officially for both the present and adjourned meetings.

Further, it is recommended that all reporting officers and representatives of official bodies read their respective reports to convey full information and understanding to this House.

Your reference committee recommends that privileges of the floor be extended to such distinguished visitors as the Speaker and Vice Speaker deem appropriate. It is emphasized that all reports and resolutions should be referred to the appropriate reference committee by the chair immediately after presentation, the only exception being those which are of such a nature as to require no further consideration and are, therefore, ready for decision by vote of this House. We remind the House of Delegates that debate should be reserved until such time as the reference committees conduct their formal meetings.

To avoid burdensome tasks upon the several reference committees and to insure that all members have adequate opportunity to discuss issues, it is recommended that the House permit no introduction of resolutions after the present meeting except for (1) matters of an emergency nature, such emergency to be determined by a majority vote of this House, (2) matters relating to a scientific section or section work, and (3) proposed changes in the Constitution and By-Laws which must lie on the table for one year.

The report of the reference committee was adopted.

On motion by Dr. Lamar Arrington, second by Dr. Stanley A. Hill, the Transactions of the 58th Annual Session of the House of Delegates, 93rd Annual Session of the Association, Biloxi, May 9-11, 1961, published in Volume II, Number 8, JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION, August 1961, were adopted.

REMARKS OF THE SPEAKER

Dr. B. B. O'Mara: Your Speaker and Vice Speaker associate themselves in the welcoming remarks of the President and others. This is your 94th Annual Session and its benefits and pleasures are those of the membership. From among all those in attendance, it is the duty of this elected body—the House of Delegates—to review the work of our officers and constitutional groups, to consider their recommendations, and to act in the interest of our state, the patients we serve, and our association. Ours is a working job.

As we put ourselves to these responsible tasks, let us review briefly our organizational structure, the various authorities reposed in us, and the manner in which the Constitution and By-Laws direct us to conduct these affairs.

The Mississippi State Medical Association is an autonomous corporate body, a scientific professional society, chartered under the laws of Mississippi as a non-profit corporation and it is privately owned by its membership.

Neither the American Medical Association nor our respective component medical societies possess the autonomy of the state association. AMA is a confederation of and by the several state associations. Each local society is chartered by and exists at the pleasure of the state medical association.

MSMA is a medical republic, meaning specifically, that ours is a representative system of self-government. The policy decisions and positions of the association are made by members of this House of Delegates when in annual session. Each member is elected to represent others from among his colleagues. Nothing in the Constitution and By-Laws provides for direct decision by the membership as a whole.

Although the minimum tenure of office for members of this House (other than scientific section chairmen) is two years, the House is not a continuing body in the sense of the Congress. Thus, business introduced must be disposed of during the present session. Of course, the House may direct actions and studies reportable to the next annual session but actions taken are individually identified by separate annual sessions.

Because of the brevity of the annual session, the House of Delegates makes use of reference committees for discussion and debate of issues before it. Such committees are known by various names in almost all formal deliberative bodies and are nearly universally employed. Every state legislature, the Congress, state medical associations, the AMA, and other properly organized groups make use of reference committees. As utilized by this association, they have these characteristics:

The reference committee offers a place, a time, and a proper climate for discussion of a specific issue or item of business. Those having an interest in the issue are thus given opportunity to make their views known. Those with no interest may accordingly have their time conserved.

Our reference committees, unlike those of the legislature and the Congress, have no authority to kill a measure by failing to act. Every item referred to a committee must be brought before the full House with a recommendation.

Final decision on all such items are decided by the vote of the entire House of Delegates.

Occasionally, a member of the association will mention his wish to introduce an item of business "for consideration by a reference committee." This is only partially correct. These committees are merely arms of this House and all business before the House is decided by the House.

As reports are heard and resolutions are presented, your Speaker or Vice Speaker will refer them to the appropriate reference committee. Where such matters were received prior to the annual session, these referrals have already been made and the report or resolution is so annotated. It is important for all to understand that debate must be reserved until the reference committee conducts hearings. Debate at the time of introduction is not provided for and it is not the wish of your Speaker or Vice Speaker to prevent or hamper any member from introducing any item of legitimate business by allowing delaying tactics on the part of any member who may object. Each and all will be heard.

Those who occupy offices of responsibility have done an enormous amount of work during the year. More than 100 meetings have been conducted, thousands of pages of agenda, minutes, exhibits, and studies have been prepared, and hours upon hours of discussions have been held. All this has been distilled to an essence for you today. Give careful attention to the reading of these reports. Reread them in the privacy of your room. Regard every issue, suggestion, and recommendation with great seriousness and vote your convictions or instructions. But do so only after you have fairly, justly, diligently, and respectfully considered all aspects of the issue.

Your Speaker and Vice Speaker will enforce the will of the majority but the rights and privileges of the minority will be carefully conserved. We are here to build constructively and we will endeavor to avoid parliamentary gymnastics, keeping all our proceedings simple, uncomplicated, and understandable.

When we adjourn, let us all be proud and grateful that we were members of a MSMA House of Delegates that served well.

REPORT OF THE REFERENCE COMMITTEE ON REPORTS OF OFFICERS AND BOARD OF TRUSTEES

Your reference committee considered the remarks of the Speaker. We thank Dr. O'Mara for his clear and lucid instructions to the House of Delegates and for his and the Vice Speaker's service in the efficient and orderly conduct of our affairs. We do point out, however, that the portion of the report which states that nothing is provided in the Constitution and By-Laws for direct decision by the membership as a whole was intended as a description of the association's structure rather than a prohibition against those surveys and polls of the membership which, from time to time, may be authorized or directed by appropriate authority.

The report of the reference committee was adopted.

REPORT OF THE COUNCIL ON CONSTITUTION AND BY-LAWS

Dr. E. LeRoy Wilkins: Your Council on Constitution and By-Laws is charged with the responsibility of reviewing all suggested amendments to the Constitution and By-Laws of our association, making recommendations to the Board of Trustees and the House of Delegates.

There are no pending amendments to the Constitution of your association at this time.

At the 93rd Annual Session, the House of Delegates voted to dissolve the Council on Socioeconomic Affairs because of an apparent duplication of other bodies of the association. This action was taken on the final day of the 1961 annual session and a change in the By-Laws was not possible at that time, since the matter had not lain on the table for the required one day.

This latter requirement has now been fulfilled by the lapse of time between the past and present annual sessions. Your Council, therefore, recommends final action which involves deleting Section 5, Chapter IX, By-Laws of the association, and the renumbering of Sections 6 through 10, inclusive, as Sections 5 through 9.

In accordance with Chapter XV, By-Laws of the association, no member of the Council on Socioeconomic Affairs will, by this action, be denied his vote and membership in this House of Delegates, this incumbency to continue until expiration of their respective terms of office.

The report of the Council on Constitution and By-Laws was adopted without referral.

REPORT OF THE JUDICIAL COUNCIL

Dr. E. LeRoy Wilkins: The Judicial Council is an elected standing body of this House of Delegates, responsible thereto, prescribed by Sections 1 and 4, Chapter IX, By-Laws of the association.

Your Council again reminds the House that since 1958, the judicial authorities of the association have been constitutionally vested in the Judicial Council. Prior to that time, this function was exercised by the Board of Trustees. Our Council is responsible for jurisdiction over all questions involving membership in the association,

all controversies arising under the Constitution and By-Laws, interpretation and application of the *Principles of Medical Ethics,* and controversies among members of the association, between a member and his component society where appellate action is indicated, and over controversies involving differences between component medical societies.

Your Council believes that a discussion of a matter during the present association year is pertinent to the business of this House of Delegates. A physician who is a Canadian citizen located permanently in Mississippi and lawfully obtained a license to practice. He applied for membership in a component medical society of the association but his application was declined under the provisions of Section 1, Chapter I, of the By-Laws which states in part that all elected to membership shall be citizens of the United States. The action of the component medical society was proper and correct, there being available no alternative or remedy with respect to election of non-citizens.

The applicant consulted various members of the Judicial Council, including your Chairman, with a view toward appealing the local decision. While such an appeal was never formally sought, it is apparent that the Council would have had no choice but to refuse to consider it because of the undeniable requirements of the By-Laws. The local society's board of censors observed that the qualifications of the applicant were not otherwise in question.

Whether a change is made in the By-Laws with respect to citizenship of eligible applicants or not is a matter to be decided by this House of Delegates. Such a decision is not within the purview of the Judicial Council. Our function is to consider, interpret, and rule strictly in accordance with existing By-Laws and other binding policy of the association.

Your Council does observe that this situation may arise again when a non-citizen of the United States is lawfully licensed to practice medicine in Mississippi.

REPORT OF REFERENCE COMMITTEE ON MISCELLANEOUS BUSINESS

Your reference committee considered the report of the Judicial Council. The Council informed us of a situation in which a physician who was not a citizen of the United States applied for membership and of the action of the component medical society in this connection. Your reference committee appreciated this information and feels that there is no need for change in the By-Laws at this time with respect to citizenship of applicants for membership.

The report of the reference committee was adopted.

REPORT OF THE BOARD OF TRUSTEES

Dr. H. H. McClanahan, Jr.: The Board of Trustees is the executive and governing body of the association during vacation of the House of Delegates. It is responsible for management and policy direction of all phases of association activity. In the discharge of these responsibilities, formal meetings of the Board were conducted during May, August, and November of 1961, and in April and May of 1962. This annual report relates to management, policy functions, and Board-supervised programs deemed important to this House of Delegates and the membership.

Journal of the Mississippi State Medical Association

Your JOURNAL MSMA has entered its third year of publication and has become established as a member of the American scientific press. During 1961, the JOURNAL earned three notable recognitions:

(1) Third international award among 670 scientific and technical publications from the International Council of Industrial Editors, in April.

(2) A national rating of eight among the 34 recognized state medical journals published in the continental United States, from the State Medical Journal Conference by the special consultant, O. M. Forkert, Ph.D., in October.

(3) Recognition for excellence in typographical format at the University of Georgia Seminar on Magazine Journalism, in November.

Fiscal management during 1961 presented a variety of problems because of substantially decreased advertising revenues, a universal experience in the medical scientific press because of the Kefauver investigation.

(1) Volume II (1961) contained 574 advertising pages as compared to 820 in Volume I (1960), a decrease of 30 per cent.

(2) Volume II contained 678 scientific-editorial pages as compared to 700 in Volume I, a decrease of only 3 per cent.

(3) Advertising-editorial division in Volume II was 46 and 54 per cent, respectively, reflecting a high scientific content.

(4) Significant quality improvements were made during 1961 as your JOURNAL team gained experience.

(5) Despite gross national advertising losses of $1,350 per month in 1961 from 1960 levels, the JOURNAL remained self-sustaining financially be-

cause of vigorous management economies which were instituted. Some state medical associations experienced serious monetary losses in journal publishing.

The Board of Trustees approves and commends the work of the Committee on Publications. It is announced that Dr. Thomas J. Marland resigned as Editor on August 5, 1961. The Associate Editor of that date, Dr. W. Moncure Dabney, was appointed to serve the unexpired term of the Editor and Dr. George H. Martin was appointed Associate Editor in Dr. Dabney's former position. Dr. DeWitt Hamrick serves as the other Associate Editor.

Committees of the Board of Trustees

The Board of Trustees has under its supervision three constitutional and two *ad hoc* committees. These are:

(1) *Committee on Publications* (constitutional), the activities of which are discussed in those portions of this report concerned with the JOURNAL MSMA.

(2) *Advisory Committee to the Woman's Auxiliary* (constitutional), which has functioned as the official liaison body with Auxiliary officers and groups.

(3) *Grievance Committee* (constitutional), which has reported that (a) no appeals from local decisions have been filed before it during the 1961-62 association year, (b) no circumstances have developed where assumption of original jurisdiction in the hearing and investigation of grievances was suggested or deemed necessary, and (c) observation of local society grievance committee activity was deemed satisfactory.

(4) *State Medicare Review Board (ad hoc),* a committee of the Board with duties defined in the agreement between the association and the Department of Defense with respect to administration of professional care aspects of the Dependents' Medical Care Act in Mississippi.

This group includes three members representing the disciplines of medicine, obstetrics-gynecology, and surgery. During 20 formal and informal meetings in 1961, it was necessary to conduct reviews of only 2.1 per cent of more than 4,200 claims, a decrease of more than one-half over 1960, a tribute to physicians rendering this care. Claims volume has increased with the mobilization of various reserve and National Guard units and current experience reflects an increase of 40 per cent over comparable periods one year ago.

The Board of Trustees commends the State Medicare Review Board, the members of which serve without compensation and are responsive in meeting attendance and requests for consultation.

(5) *Robins Award Board of Judges (ad hoc),* which reviewed nominations from the component medical societies for the first MSMA-Robins Award for distinguished community service by a physician. This body was comprised of the three Vice Presidents. Response to announcement of the award in the July 1961 JOURNAL MSMA and the special mailing directed by the Board of Trustees to each society was excellent. The presentation to the first awardee will be made during the present annual session.

Legislative Activities

The Council on Legislation has been expanded from three to nine members, in accordance with action by the House of Delegates at the 93rd Annual Session. The Board of Trustees is of the opinion that 1961-62 represents a period of your association's most intensive activity in legislative endeavor.

(1) *National Legislation.* During the 87th Congress, the association has been interested in many proposals but activities have been largely concentrated upon four measures. Formal testimony was presented on three.

(a) H.R. 4222 and S. 909, the King-Anderson bills, compulsory health care of the aged under Social Security to which we are opposed.

(b) H.R. 10, the Keogh bill, voluntary retirement programs for the self-employed which we support.

(c) H.R. 4999, the Health Professions Educational Assistance Act of 1961, federal aid to medical schools, to which we are opposed.

(d) H.R. 10032, Public Welfare Amendments of 1962, opposed to Section 1602 (a) (12) which permits determination of blindness by optometrists.

(2) *State Legislation.* During the 1962 Regular Session of the Mississippi Legislature, a maximum and successful program was conducted by the association. Both the Council on Legislation and Board of Trustees devoted substantial meeting time to this program during 1961 and various officials of the association have been actively and continuously engaged in these activities during the legislative session. From among 68 bills before the legislature having health and medical implication, positions were assumed on six House bills and two Senate bills.

(a) H.B. 132, the "Good Samaritan" law sponsored and introduced by the state medical association. This enactment became the ninth such law in the United States which affords immunity from civil liability for physicians and registered nurses when rendering emergency care at the scene of an emergency or in transporting the injured person

to a point where medical care may be reasonably expected.

(b) H.B. 344, licensure of chiropractic to which the association was vigorously opposed and which was defeated on March 13. A massive program in this connection was conducted.

(c) H.B. 393, licensure of physical therapists, supported by the association, but defeated because of its unfortunate association with the chiropractic proposal.

(d) H.B. 278 and H.B. 279, permissive legislation to exceed $40 per month Old Age Assistance benefit payments for purposes of medical care expenditures under the Kerr-Mills program, which your association supported in principle.

(e) H.B. 698, state narcotics control, supported by the association.

(f) S.B. 1516, control of sources of ionizing radiation, supported by the association but not enacted after some of its goals were accomplished by executive action.

(g) S.B. 1586, the Senate version of the "Good Samaritan" law.

A Committee on Legislative Liaison consisting of at least one physician in 81 counties was appointed by the President with the advice and consent of the Board. This body has functioned effectively in coordinating local legislative activity and in informing colleagues of pertinent issues. A weekly bulletin, the *Legislative Report,* has been published by the executive office and furnished to a mailing list of 198 key physicians. The Woman's Auxiliary has played an effective role in the legislative program. During January 26-27, 1962, the association was represented at the 1962 AMA National Legislative Conference by:

Lawrence W. Long, Jackson, President
C. P. Crenshaw, Collins, President-elect
William E. Lotterhos, Jackson, Chairman, Council on Legislation
Lamar Arrington, Meridian, member of the Board of Trustees and Council on Legislation

On November 16, 1961, the Board of Trustees, upon recommendation of the Council on Legislation and the general officers, authorized a State Legislative Conference before which association leaders, the Governor, Lieutenant Governor, and the Chairman of the General Legislative Investigating Committee appeared as speakers.

Relations Between Medicine and Optometry

At the 93rd Annual Session in 1961, Resolution No. 11, subject: "Relations Between Medicine and Optometry," was introduced by Dr. John G. Caden, by request. It subsequently developed that the sponsor of the resolution desired only support for it at the New York annual session of AMA. Since the resolution called for establishment of a commission, a staff, and funds and in view of the objective stated, the Board of Trustees suspended implementation pending this report to the House of Delegates. The resolution was adopted by AMA and the objective having been realized, it is recommended that no further action be taken by this association in this respect.

Association Insurance Programs

The various group insurance programs of the association have been extended and improved. These are in three broad categories:

(1) *Blue Cross.* This group furnishes hospitalization benefits on a "first dollar" basis to members of the association and sponsored dependents. There has been no increase in costs during the present association year.

(2) *Continental Program.* The various group programs with the Continental Casualty Company have been in effect for about 10 years. During 1961, further benefits were made available and there were decreases in premium costs in some categories. Lifetime benefits are available in the income replacement program with respect to accidental injuries and up to age 65 for disability relating to sickness on claims incurred before age 60 or five years up to age 72. The plan allows selection of benefits up to $600 monthly. The catastrophic hospital-nurse program and office overhead expense have been continued and a group life program has been authorized. The accidental dismemberment and death program offers coverage for an annual premium of $1 per $1,000 benefits.

(3) *Professional Liability Program.* The St. Paul Companies professional liability program has been well accepted after its authorization during the 93rd Annual Session and implementation in June 1961. On November 1, the St. Paul Companies announced a rate decrease of 20 per cent and companies of the National Bureau of Casualty Underwriters allowed a similar decrease on November 29. This effects a savings of more than $50 per year to members carrying the usual 100/300 limits for surgery. Rate structures now are:

Classification	*Limits*	*Old*	*New*
Physician (Code 8011)	5/15	$ 56.00	$ 45.00
(No surgery)	100/300	115.36	92.70
Surgeon (Code 8031)	5/15	134.00	108.00
	100/300	276.04	222.48

During the same period, professional liability rates were increased in 14 states.

Officers of the Board

During the past association year, the following have served in elected capacities on the Board of Trustees as required by the By-Laws:

H. H. McClanahan, Jr., Chairman
John B. Howell, Jr., Vice Chairman
C. D. Taylor, Jr., Secretary

The Board has endeavored to discharge all responsibilities and assigned duties diligently and responsibly. Each member wishes most earnestly to remain responsive to the desires of this House of Delegates and the membership in providing dynamic management and positive leadership.

REPORT OF THE REFERENCE COMMITTEE ON REPORTS OF OFFICERS AND BOARD OF TRUSTEES

Your reference committee considered the report of the Board of Trustees. We applaud the work of the Board and we express our appreciation for their exercise of leadership and guidance of our affairs. The JOURNAL of our association continues to gain stature as a member of the American Scientific Press and we are grateful to the members of the Committee on Publications and the Editors for their substantial and useful work. We appreciate the work of the committees of the Board of Trustees and we especially commend the State Medicare Review Board, the members of which serve without compensation and who are often called upon for service at meetings and consultations.

The Council on Legislation is deserving of our appreciation and we point out that the effective program conducted during the 1961-62 association year includes testimony on three occasions before the Congress and a most effective legislative program at state level. We appreciate enactment of the Good Samaritan law and we feel that the interest of the public has been protected and advanced by defeat of H.B. 344, the proposal to license chiropractors. Dr. Lotterhos and his colleagues of this Council as well as the members of the Committee on Legislative Liaison in each county are deserving of our appreciation and applause.

Few of us have a sufficient appreciation for the enormous responsibilities of the Board of Trustees and the efficient manner in which these are discharged. We are certain that the House of Delegates will wish to associate itself in our expression of appreciation to our governing body.

The report of the reference committee was adopted.

SUPPLEMENTAL REPORT OF THE BOARD OF TRUSTEES

Dr. H. H. McClanahan, Jr.: **Council on Legislation.** The Council on Legislation is a constitutional body of the House of Delegates, elected in accordance with Section 7, Chapter IX, By-Laws of the association, and responsible to the Board of Trustees. It is important that this House of Delegates resolve a question with respect to tenure of members of this council.

(1) At the 93rd Annual Session in 1961, this body was expanded from three to nine members, thereby making it representative of all association districts and the By-Laws were amended to provide for a member from each district elected for a term of three years. Further, it was directed that initial terms for new members be by appointment.

(2) Prior to this action, this council consisted of three members, two of whom were, without design, from District 5 and one, from District 6.

(3) The council now consists of the following:

District	*Member*	*Term Expires*
1	Fred M. Sandifer, Greenwood	1962
2	R. E. Shands, New Albany	1962
3	Frank M. Davis, Corinth	1962
4	Paul B. Brumby, Lexington	1964
5	W. E. Lotterhos, Jackson	1963*
	A. Street, Vicksburg	1962*
6	Lamar Arrington, Meridian	1964*
7	Van C. Temple, Hattiesburg	1963
8	A. V. Beacham, Magnolia	1963
9	James T. Thompson, Moss Point	1963

(4) Names of members of the 1960-61 council are marked with asterisks. This membership distribution accounts for there being 10 members. With the expiration of one District 5 term, membership will be reduced to nine as provided in the revised By-Laws. To bring all terms of office in District 4, 5, and 6 into simultaneous expiration in 1964, it is recommended that a member from District 5 be elected for one year only at the 95th Annual Session.

REPORT OF THE REFERENCE COMMITTEE ON REPORTS OF OFFICERS AND BOARD OF TRUSTEES

Your reference committee considered the supplemental report of the Board of Trustees, subject: Council on Legislation. We concur in the recommendations of the Board with respect to

electing a member from District 5 for a period of one year only at the 95th Annual Session in 1963. This action will bring the terms of the Council members into the usual three year, staggered categories.

The report of the reference committee was adopted.

SUPPLEMENTAL REPORT OF THE BOARD OF TRUSTEES

Dr. H. H. McClanahan, Jr.: **Medical Practice Corporations.** Since 1952, the association has supported the Keogh proposal which through congressional action, would permit voluntary retirement program for the self-employed with a tax shelter principle. Since 1954, many physicians have been interested in the so-called Kintner approach, often called a professional practice association. A third tax shelter, more recently conceived and implemented in some states, is a medical practice corporation.

(1) *H.R. 10, the Keogh bill.* This proposal, with which members of the association are familiar, has been passed by the House of Representatives, referred to the Senate, and reported favorably by the Senate Committee on Finance.

(2) *Kintner Approach.* In a 1954 tax decision, *U. S. v. Kintner,* a lower court held that a group of Montana physicians who had formed a practice association might be taxed as a corporation. The Treasury Department contested the decision through the federal courts, losing at each state of litigation. In November 1960, the Commissioner of Internal Revenue issued final regulations under Section 7701, Internal Revenue Code of 1954, which, in effect, destroyed the Kintner approach. These regulations require an association taxable as a corporation to be a corporation.

(3) *Medical Practice Corporation.* This tax shelter device is built upon state law which, in turn, is related to federal tax law and appropriate regulations. Such statutes allow the corporate practice of a profession and thus establish an employer-employee relationship for the self-employed person under the Internal Revenue Code of 1954 with resultant tax benefits.

The association never supported the Kintner approach and it appears that this was a wise decision. The Council on Legislation, after considering the Medical Practice Corporation device, recommended to the Board of Trustees that its principles be studied further and, if found feasible, a corporation act be supported for Mississippi professional persons.

The American Medical Association has stated that state laws permitting corporate medical practice for tax purposes are not in conflict with AMA policy provided that "ownership and management of the affairs of medical corporations remain in the hands of licensed physicians." There is no Mississippi statute prohibiting the corporate practice of a profession but there is a Supreme Court decision making such a prohibition in the case of the *State Board of Optometry v. Sears, Roebuck.* The latter would presumably not apply to any enabling legislation enacted.

Despite tax benefits available to physician-participants of medical practice corporations, such individuals are also mandatory participants in OASDI aspects of Social Security under Title II. Inclusion of physicians under Social Security has been opposed by this House of Delegates and it is opposed by AMA. In view of this particular aspect of the Medical Practice Corporation, the Board of Trustees feels that it is a matter for consideration by the House of Delegates. The Board of Trustees has taken no action to approve such a program.

REPORT OF THE REFERENCE COMMITTEE ON REPORTS OF OFFICERS AND BOARD OF TRUSTEES

Your reference committee considered the supplemental report of the Board of Trustees, subject: Medical Practice Corporations. Considerable discussion was presented to your committee in connection with this report. It should be fully appreciated that medical practice corporations may not be as entirely beneficial to the members as some believe. Every person attempting to take advantage of this tax shelter device would be subject to mandatory inclusion under Title II of the Social Security Act. Your association, of course, opposes such compulsory inclusion.

Your reference committee has no wish to suggest restrictions upon members of the association and, therefore, recommends that any physician should be entirely free to participate in medical practice corporations according to his individual wishes. At the same time, we do not advocate sponsorship of such a legislative enactment by the association.

The report of the reference committee was adopted.

REPORT OF THE SECRETARY-TREASURER

Dr. C. G. Sutherland: Your Secretary-Treasurer is grateful for the opportunity of submitting his first annual report to this House of Delegates. This report is divided into three general sections:

membership, fiscal reporting, and constitutional duties.

Membership. The total membership of your association during 1961 exceeded the four year average as well as totals reported for the two preceding years.

(1) On December 31, 1961, there were 1,351 members of the association in good standing as opposed to 1,317 in the preceding year. Our 1961 membership includes:

1,166 paid members
110 Emeritus members (exempt from dues)
75 members exempt from dues other than Emeritus

As of May 1, 1962, there were 1,312 members in good standing for the current year. Among these are:

1,140 paid members
106 Emeritus members (exempt from dues)
66 members exempt from dues other than Emeritus

Among the latter group, 31 are exempt by reason of residency training, 19 for military service, nine in the degree of associate member, four as scientific members, and three for reasons of undue hardship, all because of extended illness and inability to practice.

(2) All totals reported are adjusted to date to include only living members actually in Mississippi and those properly on the rolls who are located out-of-state.

(3) The association commends eight of the component medical societies for having secured 100 per cent of their renewable 1961 membership as of this reporting date:

Amite-Wilkinson County Medical Society
Claiborne County Medical Society
Delta Medical Society
DeSoto County Medical Society
Homochitto Valley Medical Society
Pearl River County Medical Society
Tri-County Medical Society
West Mississippi Medical Society

Fiscal Reporting: In accordance with accepted practice, your Secretary-Treasurer submits a condensed statement of your association's financial condition as of April 30, 1962, as an attachment to this report. The report of audit was rendered to the Board of Trustees by the independent certified public accountant based upon detailed examination of all books and records for 1961. The Council on Budget and Finance has reviewed all reports and records to which reference has been made.

MISSISSIPPI STATE MEDICAL ASSOCIATION

Condensed Statement of Financial Condition, April 30, 1962

ASSETS

Current Assets		
General Fund		
Cash on Deposit	$77,246.99	
Due from Department of Defense, Medicare Administration	1,626.00	
Due from Advertisers, JMSMA	8,485.15	
Other JMSMA Receivables	62.92	
		$ 87,421.06
Medicare		
Cash on Deposit, Professional Account	6,870.06	
Due from Department of Defense, Professional Account	38,129.94	
		45,000.00
Fixed Assets		
Land	13,605.30	
Building and Equipment, Less Depreciation	85,882.05	
		99,487.35
Total Admitted Assets		$231,908.41

LIABILITIES AND NET WORTH

Current Liabilities		
Amortization, Building, Current Year		$ 2,777.10
Long Term Liabilities		
Building	42,732.79	
Advance Medicare Capitalization	45,000.00	
		87,732.79
Deferred Income		
Advance Payments, 94th Annual Session		7,533.62
Net Worth		
Unappropriated Net Worth		133,864.90
Total Liabilities and Net Worth		$231,908.41

(1) Although income during 1961 was substantially less than 1960, your association enjoys continued financial stability. Vigorous management economies were instituted, especially as regards the JOURNAL. Increased expenditures were necessary in various programs, notably legislative activities. Despite these problems, a modest fiscal growth was realized. Long term liabilities were amortized according to schedule.

(2) Our assets as of this reporting are slightly less than $232,000, representing some gain over the preceding year. Net worth varies inversely with the passing of the fiscal year, since dues income is received during the January-March period. Cash requirements are substantial because of the JOURNAL operation.

(3) In all respects, your association is stable and solvent, meeting all usual test and criteria.

The Board of Trustees has managed our affairs wisely and soundly. Reports of audit and studies of the records indicate proper accounting procedures, adequate management, and propriety in handling of funds.

Constitutional Duties. Your Secretary-Treasurer is an *ex officio* member of all constitutional and *ad hoc* bodies of the association. Additionally, he serves as chairman of the Council on Scientific Assembly. Deep appreciation is expressed for the cooperation and support received in the discharge of these responsibilities.

REPORT OF THE REFERENCE COMMITTEE ON REPORTS OF OFFICERS AND BOARD OF TRUSTEES

Your reference committee considered the report of the Secretary-Treasurer with respect to those portions having to do with other than fiscal activities.

We express our appreciation to the incumbent Secretary-Treasurer, Dr. C. G. Sutherland, for his diligent discharge of duties. We assure him of our continuing support as we recommend that his report be adopted.

The report of the reference committee was adopted.

REPORT OF THE COUNCIL ON BUDGET AND FINANCE

Your council has examined the operation of the association for the 1961-62 year with respect to all fiscal activities, the report of the Secretary-Treasurer, and that of the certified public accountant. The findings are to the satisfaction of your council.

Prior to this annual session, your council met for this purpose and subsequently, with the Board of Trustees in this same connection. We have determined that all accounts, receipts, and disbursements are regular and authorized.

Your council has considered the 1962-63 budget for operation of your association. We have conferred with the Board of Trustees who concur in our recommendations. Each item has been carefully evaluated as to necessity and adequacy. We recommend a total budget of $732,940 which includes the following sums for purposes stated: (1) For general operation of all activities and departments of the association, including all production of your JOURNAL, $92,598.98; (2) for building amortization, utilities, maintenance, taxes, and associated expenditures, $12,439.12; (3) for professional aspects of the Medicare program, $600,000. We recommend adoption of this amount as being a realistic minimum for continued effective operation of your association.

We have surveyed the insurance coverage owned by the association on its physical properties. We find this adequate. Suitable safeguards for disbursement procedures, fidelity bonds, and proper safekeeping for important records have been provided.

The report of the council was adopted.

REPORT OF THE EXECUTIVE SECRETARY

Mr. Rowland Kennedy: Your Executive Secretary is responsible for conducting the administrative affairs of your association and for management of the executive office, in accordance with Article VII of the Constitution and Section 7, Chapter VIII, of the By-Laws. In the discharge of these duties, activities have been divided into two areas:

(1) *Supportive Role.* The executive staff maintains close liaison with the general officers, Board of Trustees, the various constitutional and *ad hoc* bodies, and the component medical societies in a role of support and staff service. Among these activities are research, records maintenance, studies, and program development.

(2) *Administrative Role.* Under supervision of various bodies, your executive staff performs fiscal, publishing, and internal administrative tasks.

Opportunities to provide increased staff services to the councils and committees were greater during the past association year, reflecting a gratifying growth in association work. Activities in national and state legislation were especially intensive. There has been no numerical increase in your staff. The decline of national advertising revenues presented problems in production of your JOURNAL MSMA but no losses were incurred. Growth of association assets was quite modest but long term liabilities were amortized according to schedule.

Your Executive Secretary expresses appreciation to the officers and Board of Trustees for their support and considerate utilization of the executive office and to each member of the staff for continued competence and loyalty to the association.

REPORT OF THE REFERENCE COMMITTEE ON REPORTS OF OFFICERS AND BOARD OF TRUSTEES

Your reference committee considered the report of the Executive Secretary. We wish to express appreciation for and recognize the exceptional services over the years of our Executive Secretary. We feel that in a large measure, prog-

ress of our state medical association is due to the work of Mr. Kennedy and his staff.

Your committee is gratified to report that much favorable comment was received from out-of-state visitors with regard to the staff organization of the 94th Annual Session.

We unanimously approve the report of the Executive Secretary.

The report of the reference committee was adopted.

REPORT OF THE DELEGATES TO AMA

Dr. J. P. Culpepper, Jr.: As your accredited delegate to the American Medical Association, it is my privilege to present a condensed summary report of the 110th Annual Session, New York, June 25-30, 1961. The House of Delegates was in session four days including those reserved for reference committee hearings. Total registration exceeded 56,000 including about 23,000 physicians, a new record for annual session attendance. The scientific assembly was outstanding and Dr. Leonard W. Larson of Bismarck, North Dakota, was inaugurated as the 115th President during impressive ceremonies.

Principal issues before the House of Delegates included osteopathy, disciplinary activities by medical organization, communications, surgical assistants, legislation, general practice training, relations with allied health professions, and poliomyelitis vaccines. The delegates considered 28 reports and 115 resolutions.

As a culminating action to those initiated at the 1959 Atlantic City Annual Session, the House of Delegates rescinded the policy against voluntary association with osteopaths as was applied at national level. Formally, the House stated that the test should be this: Does the individual doctor of osteopathy practice osteopathy or does he, in fact, practice a method of healing founded on scientific basis? If he practices osteopathy, he practices a cult system of healing and all voluntary professional association with him is unethical. If he bases his practice on the same scientific principles as those adhered to by members of the American Medical Association, voluntary professional relationships with him should not be deemed unethical. Although the House continues to denounce and disapprove any relationship between a doctor of medicine and a cultist, it did recognize the transition which is said to be occurring in osteopathy. This has been, it was reported, particularly evident in California. Your delegates, being instructed in this connection, declined to support any movement which would approve as ethical relationships with practitioners which the Mississippi State Medical Association defines as cultists.

The final report of the AMA Medical Disciplinary Committee was received. The report urged vigorous utilization of grievance committees and the House recommended that each medical school develop and present a required course in ethics and socioeconomic principles and that each state board of medical examiners include questions on ethics and proper socioeconomic practices in all examinations for medical licensure. The controversial matter of conferring original jurisdiction on the Judicial Council of the AMA was recommended but not acted upon with finality at the New York Annual Session.

The Speaker of the House of Delegates was authorized to appoint a seven member committee with respect to communications activities, the designation now employed for public relations activities. A report and two resolutions on the subject of surgical assistants' fees included five basic tenets which the House adopted. These are: (1) that each member is expected to observe the Principles of Medical Ethics, (2) each physician engaged in the care of a patient is entitled to just compensation commensurate with the value of services personally rendered, (3) no physician should bill or be paid for a service not performed and mere referral does not constitute a professional service for which a charge should be made nor for which a fee may be ethically received, (4) it is ethically permissible for a surgeon to employ other physicians to assist him and to pay a reasonable fee for such assistance provided no subterfuge to split fees in involved, and (5) under all other circumstances where services are rendered by more than one physician, each physician should submit his own bill to the patient and be compensated separately.

Your delegates recognized that long-standing policies of the Mississippi State Medical Association require that each physician engaged in the care of a patient should bill the patient separately. It is felt that nothing in the AMA policy contravenes that of the state association although its flexibility appears somewhat greater.

The House opposed the Kefauver bill which would permit the federal government to pass upon the efficacy and safety of drugs, approved a markedly expanded drug information program, and opposed vigorously legislative and administrative mandates which would compel physicians to prescribe drugs or require that pharmaceuticals be sold by generic name only.

HOUSE OF DELEGATES / Continued

In accordance with instructions from this House of Delegates, a resolution was introduced by our association on general practice residencies to include training in obstetrics and surgery. Seven similar resolutions were introduced and the House approved a policy to consider other two year programs in general practice which incorporate experience in obstetrics and surgery, such programs to be reviewed on bases of individual merit under long range evaluation projects.

A new commission was established to coordinate relationships between medicine and allied health professions and the House of Delegates urged that maximum use be made of Salk poliomyelitis vaccine until the Sabin oral vaccine becomes available.

Your delegates introduced a resolution, also in compliance with a mandate of this House of Delegates, supporting the needed increase in dues at national level but were unsuccessful in causing the increase to be effected in one step only and preventing use of AMA funds for financial assistance to medical students other than as loans which were fully repayable. The Mississippi resolution urging that more than one private practitioner be included in the membership of the Council on Medical Education and Hospitals and simultaneously calling upon physicians in private practice to support medical education, was not acted upon.

The House of Delegates again reaffirmed support of the Kerr-Mills program and its opposition to King-Anderson type legislation declaring that the medical profession ". . . will not be a willing party to implementing any system which we believe to be detrimental to the public welfare." The General Practitioner of the Year Award was discontinued and immunization campaigns against both tetanus and influenza were urged.

Attendance at the New York Annual Session by Mississippians was excellent and your delegates are deeply grateful for the support received from the various general officers who attended and participated in deliberations of the House of Delegates. Dr. George M. Fister, Ogden, Utah, a former member of the House of Delegates and the Board of Trustees, was named President-elect of the association. Dr. Fister will be inaugurated the 116th President of the association at the Chicago June 24-28, 1962, Annual Session.

Dr. John F. Lucas: As your accredited delegate to the American Medical Association, it is my privilege to present a condensed summary report of the 15th Clinical Session, Denver, Colorado, November 26-30, 1961. The House of Delegates was in session three days including one reserved for reference committee hearings. Attendance upon this clinical session was small, scarcely 7,000 persons from among whom only slightly more than 3,000 were physicians. Major issues before the House of Delegates included compulsory health care under Social Security, relations with the American College of Surgeons, organization of the new American Medical Political Action Committee, medical disciplinary action, and poliomyelitis vaccine. Your delegates introduced a resolution on voluntary retirement programs for the self-employed under Keogh-type legislation upon instructions from our Board of Trustees.

Beginning with the keynote address of the President, Dr. Leonard W. Larson, a thread of continuity reflecting strong and vigorous opposition against compulsory care for the aged under Social Security was apparent throughout the meeting. Dr. Larson declared that enactment of King-Anderson-type legislation ". . . would certainly represent the first major, irreversible step toward the complete socialization of medical care." The issue, he declared, is socialization versus voluntarism or compulsion versus freedom of choice. He predicted that with courage, determination, and the will to win on the part of physicians, the King-Anderson bill can and will be defeated in the Congress.

The House of Delegates agreed with the intent of five resolutions expressing strong dissatisfaction over statements by a spokesman for the American College of Surgeons. The resolutions voiced objection to then-recent policy positions of the American College of Surgeons which had appeared in public news media. In agreeing in principle with the several resolutions, it was stated that all who appeared before the reference committee opposed the position of the College and that most such individuals were Fellows in the College. It was concluded that the issue is ". . . all the more important because the position of the American College of Surgeons is based on an incorrect interpretation of action of this House which in no sense is a retreat from its position of firm opposition to fee splitting."

The House of Delegates adopted a proposal by the Board of Trustees to initiate arrangements for a meeting with the Board of Regents of the American College of Surgeons and expressed the hope that the outcome would lead to a unification of effort in behalf of American medicine.

The House unanimously approved the purposes and goals of the recently organized American Medical Political Action Committee and urged

all physicians, their wives, and interested friends to join AMPAC. The purposes of AMPAC, an organization totally separate and distinct from AMA, will be to strive for improvement in government by encouraging political action by physicians and others; to promote an understanding of the nature and actions of government on important political issues with respect to political parties, office holders, and candidates; to assist physicians and others in organizing themselves for more effective political action; and to do any and all things necessary or desirable for attainment of these purposes. Dr. Gunnar Gundersen, a past president of AMA, is chairman of AMPAC.

A proposal to amend the By-Laws of the American Medical Association to confer original jurisdiction with respect to suspension and/or revocation of AMA membership of a physician found guilty of violating the Principles of Medical Ethics or ethical policies of the association, regardless of whether action had been taken against him at the local level or not, was not adopted. The delegates, after discussion on the floor of the House, recommitted the proposal to the Council on Constitution and By-Laws.

The House again urged that all medical societies encourage and stimulate immunization procedures against poliomyelitis. The resolution stated that on the basis of the results of surveys, local medical societies should determine the type of vaccine and the most effective type of program which would be of greatest benefit to the public. This action, in effect, approved the Sabin oral vaccine.

On instructions by the MSMA Board of Trustees, your delegates introduced a resolution urging that AMA act more aggressively in seeking passage of Keogh-type legislation. The resolution was vigorously supported in debate before the reference committee and was adopted with the alteration "that this House of Delegates request the Board of Trustees to continue its aggressive attitude toward securing enactment of H.R. 10."

In other actions, the House reaffirmed AMA policy that it is not unethical for a physician to own or operate a pharmacy provided there is no exploitation of the patient. Agreement was expressed with the Judicial Council that the physician himself is responsible for the control and custody of drug samples once they come into his possession. Constituent or state medical associations which have moved forward in the area of human relations by eliminating membership restrictions based on race or color were commended. In connection with this same subject, Dr. Peter Marshall Murray of New York City retired after 12 years of service in the House of Delegates. He has been the only Negro physician in this body. Dr. Murray stated that Negro physicians now have some sort of state association membership in every state except one.

The House voted to combine the functions of the American Medical Education Foundation and the American Medical Research Foundation into a unified arm which has been designated the American Medical Association Education and Research Foundation. The House approved the principle of income tax deductions for medical care of the aged and suggested that county medical societies in areas near armed forces installations make a serious attempt to establish formal liaison with military physicians with reference to the Medicare program. The House endorsed the administration of indigent medical care programs developed in cooperation with local medical organizations as a legitimate activity of state boards of health.

The House voted to encourage the Board of Trustees to continue its negotiations to develop a group insurance program for AMA members. Your delegates are aware that the Board of Trustees has stated that this function is best left to the several state medical associations.

The Board of Trustees presented a special citation to the producers and cast of the Donna Reed television show for its ". . . contribution to the public understanding of the high ideals of the medical profession." Mr. Carl Betz who portrays Dr. Alex Stone, the television pediatrician, received the award in behalf of the production. Contributions totaling $435,000 were presented to the American Medical Education Foundation including a presentation from Mississippi.

Although the meeting was remote from Mississippi, your delegates were gratified with the attendance and support of officers and members of the association.

REPORT OF THE REFERENCE COMMITTEE ON REPORTS OF OFFICERS AND BOARD OF TRUSTEES

Your reference committee considered the reports of the delegates to the American Medical Association, Drs. Culpepper and Lucas, conjointly. First, your reference committee wishes to commend these officers for their able representation of the association. We believe it appropriate to point out that the association feels that there is no need of organizing a state level counterpart to the American Medical Political Action Committee. However, we emphasize that physicians in

this state are encouraged to fulfill their obligations of citizenship by useful and constructive political participation and in this context, they are at liberty to participate in AMPAC by contributions and/or membership.

Your reference committee heard stimulating discussion with respect to that portion of the reports having to do with the policy on submission of professional fee statements for services of assistants at surgery. Your reference committee concurs in four of the five aspects of the AMA policy including strict observance of the *Principles of Medical Ethics* by all physicians, the entitlement of all physicians to just and appropriate compensation for services actually rendered, the fact that physicians should not bill or be paid for services not performed, and for submission of separate statements for services rendered.

Your reference committee emphasizes that the policy of the association requires submission of separate statements by each physician participating in the care of the patient for services actually performed. Simultaneously, we reaffirm our opposition to the division of fees under any guise whatsoever.

The report of the reference committee was adopted.

ANNOUNCEMENT OF NOMINATING COMMITTEE

Following a recess for caucuses by association districts, the Nominating Committee was announced:

Charles W. Patterson, Rosedale, District 1
Joseph B. Rogers, Oxford, District 2
Stanley A. Hill, Corinth, District 3
William A. Middleton, Winona, District 4
H. C. Ricks, Sr., Jackson, District 5
Omar Simmons, Newton, District 6
Andrew J. Carroll, Jr., Hattiesburg, District 7
Robert H. Brumfield, McComb, District 8
C. D. Taylor, Jr., Pass Christian, District 9

Dr. Hill was designated chairman by a vote of the committee which conducted open sessions on May 9, 1962.

REPORT OF THE COUNCIL ON SCIENTIFIC ASSEMBLY

Dr. C. G. Sutherland: Your Council on Scientific Assembly is selected and charged with its several responsibilities pursuant to Section 3, Chapter IX, By-Laws MSMA. The membership consists of the chairmen of the seven sections of the Scientific Assembly and your Secretary-Treasurer who serves as chairman. Your Council is charged with the planning and organization of the association's scientific activity to include the formal section programs, the scientific exhibit, the technical exhibit, and coordination of those group activities of specialty societies and others usually identified with your annual session.

The 94th Annual Session, your Council feels, is a significant event in the 105 year history of our association. In addition to programs of the sections and the several specialty societies, the Symposium on Space Medicine and the adjunctive exhibits have made the present annual session a scientific meeting of national significance. Almost one year was required for planning, organizing, and securing participation of various major government agencies with respect to the symposium. The project was approved by the Board of Trustees.

Your Council is indebted to the Department of the Air Force, particularly to Major General O. K. Neece, the Surgeon General, and to Major General R. L. Bohannon, the Deputy Surgeon General; to the United States Aerospace Medical Center and its commander, Brigadier General T. C. Bedwell, Jr.; to the USAF School of Aviation Medicine; to the National Aeronautics and Space Administration; and to the Honorable John C. Stennis, U. S. Senate, who not only honors our association with his presence but who materially assisted our efforts in organizing the symposium and in obtaining the Mercury spacecraft.

At the 93rd Annual Session, the House of Delegates adopted Resolution No. 14, introduced by Dr. Temple Ainsworth, which requested your Council ". . . to confer with representatives of the several specialty societies to the end of placing before the seven scientific sections papers and scientific presentations in the interest of the several specialty fields . . ." which were defined by the House to include urology, orthopaedic surgery, neurological surgery, anesthesiology, pathology, and radiology.

On July 10, 1961, a Committee on Specialty Representation, an *ad hoc* body of the Council, was appointed to include representatives of the enumerated specialties, the sponsor of the resolution, and a representative of your Council. With the exception of anesthesiology, each of the specialties designated by the House of Delegates is represented on your current scientific program.

All members and guests are encouraged to participate in all phases of the Scientific Assembly within the spheres of their respective fields of professional interest. Especially is each physician asked to visit the technical exhibit, budgeting suf-

ficient time to call at each booth and become acquainted with the professional service representatives. Your Council earnestly hopes that this annual session is professionally profitable and personally enjoyable to all. We are grateful for the cooperation and assistance of many individuals and groups in planning and organizing the 94th Annual Session.

REPORT OF THE REFERENCE COMMITTEE ON MISCELLANEOUS BUSINESS

Your reference committee considered the report of the Council on Scientific Assembly. We commend the Council on Scientific Assembly for its historic, significant, and important program which has been well received by all members of the association. We feel that the Symposium on Space Medicine marked a scientific milestone in the 106-year history of our association and we commend Dr. Sutherland and his colleagues for this splendid presentation. We express our appreciation to Drs. Strughold, Stapp, and Simons, and to Mr. John H. Stennis who ably represented his distinguished father, The Honorable John C. Stennis. Finally, we express appreciation to our President, Dr. Long, for his stimulating and informative keynote address before the Symposium.

Mr. Speaker, your committee was gratified to note that the Ainsworth resolution adopted in 1961 has been implemented and we commend all sections of the Scientific Assembly, the officers, and essayists.

The report of the reference committee was adopted.

OPEN SESSION OF THE HOUSE OF DELEGATES

The House of Delegates entered upon open session during which an honorary member of the association as well as a distinguished guest, Dr. George F. Lull, Chicago, President-elect of the Illinois State Medical Society, was presented. Dr. Lull, on invitation of the Speaker, addressed the House.

ADDRESS OF THE PRESIDENT

The President of the association, Dr. Lawrence W. Long, delivered his address to the House of Delegates and he was accorded a standing ovation. The address has been published separately in Volume III, Number 8, JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION, August 1962.

REPORT OF THE REFERENCE COMMITTEE ON REPORTS OF OFFICERS AND BOARD OF TRUSTEES

Your reference committee associates itself with all members of the Mississippi State Medical Association in applauding and commending our President, Dr. Lawrence W. Long. This forceful and perceptive address has not only inspired us but it has demonstrated to the public that the medical profession is willing to accept the responsibility of assuming the initiative in combatting false practitioners who would foist themselves on the public as being able to heal.

We believe that Dr. Long has given the medical profession and the public a challenge which cannot be ignored. As he pointed out, many victims of the health fraud "return to competent medical care, recognizing their error in judgment. For some, the wakening is too late and the consolation, too little." He has shown us the enormous extravagance and waste of our national income and resources on those charlatans who prey upon human misery.

Your reference committee urges that every member of the association familiarize himself with this splendid address. We are unanimous in our belief that Dr. Long will be remembered and recorded as one of the association's more outstanding presidents whose mark in medical history will always be identified as the constant and continuing uplift of our profession and the extension and rededication of its service to all whom we serve.

The report of the reference committee was adopted.

REPORT OF THE COUNCIL ON MEDICAL SERVICE

Dr. Guy T. Vise: The primary function of the Council on Medical Service is the study of all aspects of medical care in Mississippi and the circumstances under which it is provided. The work of this body is conducted with the assistance of 10 committees, seven constitutional and three *ad hoc,* all comprising a working force of 77 physicians in elected, appointed, and consultant capacities. During the 1961-62 association year, these groups met on about 18 occasions, conducted necessary staff conferences, and represented the association at national and regional meetings.

Committees of the Council

Studies and programs of the several committees of the Council embrace a wide variety of subject areas. Among these are:

Committee on Mental Health. The chairman of this body, Dr. John J. Head, Whitfield, represented the association at the 1961 AMA National Conference on Mental Health, the AMA Conference of State Chairmen on Mental Health Committees, and the 1961 Governors' Conference on Mental Health. The work of this committee has placed

emphasis upon professional and care aspects of effective treatment of mental illness, liaison with private practitioners, and professional education in the psychiatric field.

The Council hopes that, as psychiatric care facilities in Mississippi are improved and expanded, greater impetus may be accorded residency programs and locally conducted psychiatric affiliation for nurse training. It is recommended that joint discussions and studies in this respect be undertaken by the Committee on Mental Health, the University of Mississippi School of Medicine, the Mississippi State Nurses Association, and the Council on Legislation.

Committee on Diseases of the Heart. This group serves as the official liaison mechanism between the association and the Mississippi Heart Association. It is especially concerned with programs for diagnosis and care of cardiovascular conditions, rehabilitation of such patients, and the work of voluntary health agencies in this area. Recently, the Council has assigned this committee a study project in programs of physical fitness.

The Council anticipates making recommendations at the 95th Annual Session on a physical fitness program.

Committee on Cancer Control. This committee reports full accreditation by the American College of Surgeons of seven tumor clinic programs in Mississippi. These are:

Columbus
  Doster Hospital
Greenville
  Gamble Brothers and Archer Clinic
Jackson
  Central Tumor Clinic (Baptist Hospital)
  University of Mississippi Hospital
  Veterans Administration Hospital
Vicksburg
  Mercy Hospital—Street Memorial
  Vicksburg Hospital

The cytologic screening program, developed and implemented by private practitioners, has been expanded. The American Cancer Society is continuing its massive, six year study to determine if ethnic, personal, cultural, and socioeconomic factors influence the incidence of cancer.

The Council recommends that all Mississippi physicians increase their use of cytologic screening facilities in the interest of early diagnosis of cancer.

Committee on Occupational Health. Studies in rehabilitation of the occupationally disabled have progressed satisfactorily. Reports from 12 public and private agencies in Mississippi are concerned with (1) what rehabilitative facilities and services are offered by the agency, (2) what followup and cross-servicing of cases is done by each agency, (3) how the agency secures necessary services for the rehabilitee which it does not provide, (4) what sources refer rehabilitees to each agency, and (5) goals and objectives of each agency's overall program for rehabilitation of the occupationally disabled.

Believing that a continuing mechanism is needed for furnishing lateral communication among the several agencies concerned with rehabilitation of the occupationally disabled, the committee recommended—and the Council concurred—that a Council on Rehabilitation be organized to consist of all such groups. The purpose of the new council, a loosely knit, non-administrative, non-legislative body, is that of furnishing a forum for discussion of ideas, exchange of information, and as a means of conducting useful lateral communication. Believing that this new body should not be sponsored by a group having an interest in rehabilitation of the occupationally disabled, the committee recommended its appointment by the Governor, affording it quasi-official status.

The Council on Medical Service is glad to report appointment of this proposed Council, consisting of representatives from medicine, management, labor, workmen's compensation, insurance, vocational rehabilitation, veterans training approval agency, public welfare, employment agency, farm organization, and hospitals. The chairman of the Committee on Occupational Health, Dr. George D. Purvis, Jackson, was appointed to represent the association and designated chairman of the Council on Rehabilitation by Governor Barnett.

The Council on Medical Service applauds this action, endorses the purposes and functions of the new body, and asks that this House of Delegates express a full measure of appreciation to the Governor for his interest and valuable support of these objectives.

Committee on Maternal and Child Care. Maternal mortality studies have been continued and cooperation by Mississippi physicians is excellent with a response of 85 per cent to questionnaires. Minor changes have been made in procedures for collecting data including personal followup letters to physicians for amplification of information initially submitted. Methods of acquainting physicians with the committee's studies have been expanded and publication of selected cases in the JOURNAL MSMA has been continued. Additional educational activities will include discussion of

selected cases during the 94th Annual Session in conjunction with the Mississippi Ob-Gyn Society.

Progress in development of perinatal mortality studies in hospitals has been slow. The committee encouraged publication of one year's experience with such a program in the February 1962 JOURNAL MSMA. The committee hopes that more physicians will become interested in the serious problem of wastage of human life at and around the time of birth.

The Council commends the Committee on Maternal and Child Care for its program of study, its substantial contributions to the association's literature, and for the salutary effect its work is exerting upon professional education and obstetrical practice.

Committee on Aging. Association activities in the field of aging relate to programs of socioeconomic research, public and professional education, legislation, voluntary prepayment and health insurance, care for the indigent, and activities in improvement and expansion of medical and related facilities. Because of the interrelation of these activities to divergent programs, the committee now finds it inappropriate to function in an isolated climate.

Recently, the committee has placed emphasis upon public information dissemination and urges physicians to appear as speakers before service clubs and various opinion leader groups to discuss the association's overall program in the field of aging.

The Council reaffirms the association's basic policy with respect to health care of the aging and concurs in the views and activities of the committee.

Committee on Blood and Blood Banking (ad hoc). Studies of blood banking and transfusion services in Mississippi hospitals have been concluded with a recent revalidation of initial survey data and an assessment of findings. A comprehensive report in this connection will be published in the JOURNAL MSMA.

In cooperation with the Mississippi Hospital Association, the committee sponsored a blood bank workshop which was attended by about 100 registrants from the hospital field. It is planned to present two regional technical workshops for hospital laboratory technicians during the 1962-63 association year, one at Oxford and one at Hattiesburg.

The committee is interested in legislation relating to the legal doctrine of implied warranty in transfusion service and advocated adoption of a statute which would define blood banking activities as a service rather than a sale.

The Council endorses and commends activities of the committee, encourages its program of professional education, and concurs in the proposed legislative action.

Other Committee Activities. The initial assignment of the Committee on Physical Therapy, an *ad hoc* body of the Council, in establishing working liaison with the Mississippi Chapter of the American Physical Therapy Association has been concluded. Legislation proposing licensure of physical therapists in Mississippi was unsuccessful.

A new *ad hoc* group, the Committee on Disaster Medical Service, has been organized to guide association activities in the Medical Self-Help Training Program which has been approved by the American Medical Association, the U. S. Public Health Service, and others. The program is a vital adjunct to the overall civil defense effort.

The Council expresses to the Committee on Physical Therapy appreciation for its work. Each member of the association is asked to support the activities of the Committee on Disaster Medical Service and to participate in the Medical Self-Help Training Program.

Other Activities of the Council

Physicians are encouraged to support efforts to achieve complete immunization of all patients with special reference to poliomyelitis and tetanus. While the Council concurs in the objectives of the present governmental program for immunization of infants and children against poliomyelitis, diphtheria, pertussis, and tetanus, it feels that these desirable goals can be realized through private practice means rather than through governmental programs. The instructions of this House of Delegates in 1961 have been followed with respect to the relative value index study and as a result of the poll, the study has been discontinued and the committee, having served its function, has been discharged.

During the current association year, the following have served in elected capacities on the Council: Guy T. Vise, Meridian, chairman; M. Q. Ewing, Amory, vice chairman; and S. Lamar Bailey, Kosciusko, secretary. On behalf of all members of the Council, the several committeemen, and consultants, deep appreciation is expressed to this House of Delegates, the Board of Trustees and Officers, and all members for support of our program of enormous and varied activity in behalf of medical practice.

REPORT OF THE REFERENCE COMMITTEE ON MEDICAL PRACTICES

Your Reference Committee on Medical Practices considered the report of the Council on Medi-

cal Service. We express our appreciation for the substantial and significant work of the council as well as its several committees. In approving this report, we wish to point out certain aspects of matters reported to the House of Delegates. Your committee feels that there has been an insufficient implementation of the Kerr-Mills program in Mississippi. This implementation is less than that necessary or satisfactory as regards physicians, hospitals, and the public. Your reference committee recommends that the Council on Medical Service restudy this program and present further recommendations for meaningful implementation of this law.

The attention of all members of the House of Delegates is invited to the final section of the report of the Council on Medical Service. Your reference committee concurs in the recommendation that all physicians be encouraged to support efforts to achieve complete immunization of all patients with reference to poliomyelitis and tetanus and we urge that immunization of infants and children against poliomyelitis, diphtheria, pertussis, and tetanus be vigorously pursued through private practice rather than through governmental programs.

Attention is also invited to the fact that the relative value index study has been discontinued and as a result of the poll, the committee, having served its function, has been discharged.

While your committee concurs in the objectives sought with respect to expansion of Mississippi training programs in the psychiatric field, it is believed that the state does not possess the necessary facilities, funds, or personnel to implement the recommended program.

The report of the reference committee was adopted.

SUPPLEMENTAL REPORT OF THE COUNCIL ON MEDICAL SERVICE

Dr. Guy T. Vise: **Suggested Guides for Use of Gamma Globulin as a Prophylaxis with Respect to Hepatitis.** The Council on Medical Service, recognizing that differences of professional opinion exist with respect to the use and efficacy of gamma globulin in the treatment of hepatitis, asked the State Board of Health to conduct studies in this respect.

Such studies were conducted by and under the supervision of the Director of the Division of Preventable Disease Control and the findings concurred in by the Executive Officer. These are presented to this House of Delegates with the endorsement of the Council. It is recommended that the suggested guides be adopted and published for the guidance of all physicians.

The suggested guides, appended to the supplemental report, have been published separately in Volume III, Number 8, JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION, August 1962.

REPORT OF THE REFERENCE COMMITTEE ON MEDICAL PRACTICES

Your reference committee considered the supplemental report submitted by the Council on Medical Service. In approving this report, your committee recommends that its subject be changed to read: "Suggested Guides for Use of Gamma Globulin as a Prophylaxis with Respect to Hepatitis." We recommend that the dosage levels be published in the association's *Newsletter* and that the full text of the suggested guides be published as a scientific document in the JOURNAL MSMA.

The report of the reference committee was adopted.

SUPPLEMENTAL REPORT OF THE COUNCIL ON MEDICAL SERVICE

Dr. Guy T. Vise: **Phenylketonuria Detection Program.** On March 1, 1962, the Mississippi State Board of Health, through its president, asked your Council to consider a phenylketonuria detection program.

Phenylketonuria is a hereditary metabolic disease characterized by a defect in an enzyme system which converts the amino acid phenylalanine to tyrosine. Since phenylalanine constitutes about 5 per cent of most protein foods, a rich concentration is found in the blood, spinal fluid, and urine. This disease almost always produces brain damage and mental retardation in affected children. In this connection, the president of the board has stated:

"The defective gene producing phenylketonuria is inherited as a Mendelian recessive trait. Where children are victims of phenylketonuria, the father and the mother must both carry the gene causing the disease. In a family with four children from such a union, one child could be expected to be normal, two children to be carriers of the gene, and one to be affected with the disease. It is estimated that about one out of 80 persons carries the gene for the defect. The chances of one carrier marrying another is $(1:80)^2$ or 1 in 6,400 marriages. The probability of producing a person with the disease from such a marriage would be about 1 in 25,000 births. About one out of 100 mentally retarded persons has the disease. In our State School for Mentally Retarded Persons at Ellisville, there are 14 cases of phenylketonuria

among 1,100 inmates. This is about the expected incidence."

Phenylketonuria is now considered a treatable disease. The mental retardation which it causes can often be prevented if early treatment is instituted, preferably before the infant is three months of age. This regimen consists of a special diet low in phenylalanine, now commercially available. The cost of dietary management of a case is about $375 per year. This management may be discontinued after the brain has attained most of its growth but such decision should be made by the attending physician.

Various simple and inexpensive tests for detection of phenylketonuria are available including (1) ferric chloride test, (2) filter paper screening test, (3) Phenistix (Ames) test, and (4) dinitrophenyl hydrazine test. Each of these tests are for detecting phenylpyruvic acid in the urine and the disease may be discovered in infants by the age of four weeks, even though it is not detectable in the urine at birth.

Mississippi does not yet have a phenylketonuria detection program and the State Board of Health recommends institution of such a program either by hospitals participating voluntarily or by mailing test kits to the mother on information received in birth registrations, the latter method being conducted by the State Board of Health. Results of the test would be reported to the attending physician.

Incidence of the disease among white infants is such that one or two cases would probably be discovered annually in a conscientiously administered program. The Council on Medical Service recommends that a phenylketonuria detection program be organized and implemented by private physicians and hospitals and that such positive tests be made reportable to the State Board of Health. It is further recommended that the State Board of Health make such tests only where delivery is accomplished by a midwife.

REPORT OF THE REFERENCE COMMITTEE ON MEDICAL PRACTICES

Your reference committee considered the supplemental report of the Council on Medical Service, Phenylketonuria Detection Program. We approve this report and recommend that tests for phenylketonuria be conducted on infants at the age of four to six weeks. Further, we recommend that this program be announced in the association's *Newsletter*.

The report of the reference committee was adopted.

SUPPLEMENTAL REPORT OF THE COUNCIL ON MEDICAL SERVICE

Dr. Guy T. Vise: **Teaching Programs in Charity Hospitals.** The four charity hospitals in Mississippi are under the supervision of the Board of Trustees of State Eleemosynary Institutions as authorized under Section 6921, Mississippi Code of 1942. The board consists of five members, two of whom are physicians. The institutions are:

(1) State Charity-Kuhn Memorial Hospital, Vicksburg

(2) Matty Hersee Hospital, Meridian

(3) Natchez Charity Hospital, Natchez

(4) South Mississippi Charity Hospital, Laurel

Operationally, the four institutions present these aspects:

(1) There are a total of 420 general medical and surgical beds and there are 100 recently constructed chronic care beds in the Vicksburg facility. During the calendar year 1960, there were admitted to these institutions 13,370 adult patients who qualified for care under the law. A total of 89,211 patient days of care was provided in the same period, a slight decrease over the average of 1958 and 1959.

(2) During the 1960-62 biennium, the Eleemosynary Board received an appropriation of $1,712,000 for general operation and $239,000 for the four nurse training programs. The Meridian and Laurel facilities have professional nurse training programs and the Vicksburg and Natchez institutions have practical nurse (LPN) schools.

The Council on Medical Service recommends that the University of Mississippi School of Medicine avail itself of the opportunity for teaching in these four institutions and establish residency programs in each.

REPORT OF THE REFERENCE COMMITTEE ON MEDICAL PRACTICES

Your reference committee considered the supplemental report of the Council on Medical Service, Teaching Programs in Charity Hospitals. Your reference committee recommends that final paragraph of the report be revised to read: "The Council on Medical Service recommends that the University of Mississippi School of Medicine investigate the feasibility for teaching in these four institutions." As changed, your committee approves the report.

The report of the reference committee was adopted.

REPORT OF THE COMMITTEE ON AMERICAN MEDICAL EDUCATION FOUNDATION

Dr. W. E. Caldwell: Your Committee on American Medical Education Foundation is composed

of one member from each component medical society. The members of the committee have been untiring in their efforts to educate the members of MSMA to the value of regular contributions to medical education. The ladies of the Auxiliary have also contributed and worked effectively for AMEF.

Again this year, your committee is glad to report an increase in AMEF contributions from Mississippi. Total contributions in 1961 amounted to $5,071.99.

On January 1, 1962, the American Medical Education Foundation (AMEF) and the American Medical Research Foundation (AMRF) were consolidated within the framework of a single foundation, the American Medical Association Education and Research Foundation (AMA-ERF). In addition to continuing the past AMEF program of financial assistance to medical schools, the new foundation is seeking funds to support the following projects:

(1) A study of continuing medical education.

(2) A research grants program for medical research workers.

(3) A medical journalism fellowship program.

(4) A medical scholarship and loan program.

AMA-ERF is seeking financial support from physicians, constituent and component medical societies, the Woman's Auxiliary, philanthropic organizations, business entities and the general public. The Foundation encourages contributors to designate which project they wish to support and, in the case of financial assistance to medical schools, to designate the specific school which is to receive their contribution. All contributions to AMA-ERF are tax deductible.

It is respectfully suggested that the name of your Committee on AMEF be changed to Committee on AMA-ERF and that the committee coordinate its state activities with the national foundation as in the past.

A list of MSMA contributors to AMEF during the period February 1-December 31, 1961, is attached. The committee thanks these contributors for their support of private medical education and earnestly solicits their and others continued support during 1962.

REPORT OF THE REFERENCE COMMITTEE ON MISCELLANEOUS BUSINESS

Your reference committee considered the report of the Committee on American Medical Education Foundation. We express our appreciation to the chairman, Dr. W. E. Caldwell, and we are gratified to note the substantial increase in contributions to medical education by members of the association during the past year. We encourage all members to participate in this meritorious program.

Your reference committee recommends that the designation of this committee be changed to the Committee on American Medical Association Education and Research Foundation.

The report of the reference committee was adopted.

RESOLUTION NO. 1
DEADLINE FOR RESOLUTIONS AND REPORTS

Dr. James C. Bass, Jr.: WHEREAS, The business and actions of the Mississippi State Medical Association are of vital interest to and binding on each individual member of the association, and

WHEREAS, Delegates to the annual meeting, although not desiring to be formally instructed, would like to have knowledge of the position taken by a majority of the membership on controversial matters, and

WHEREAS, The various major committees of the state association could and should have their reports and resolutions ready 45 days prior to the annual session, now, therefore, be it

Resolved, That the South Mississippi Medical Society petition the Mississippi State Medical Association to amend its By-Laws and provide that all matters of major importance or of a controversial nature shall be communicated to the component medical societies 40 days prior to the annual business session so that opportunity may be afforded the individual delegates to ascertain the position of the majority of his constituency and be able to function in a democratic manner.

REPORT OF THE REFERENCE COMMITTEE ON MISCELLANEOUS BUSINESS

Your reference committee considered Resolution No. 1, subject: Deadline for Resolutions and Reports, introduced by Dr. James C. Bass, Jr., in behalf of the South Mississippi Medical Society. The resolution would require that matters of major importance or of a controversial nature be communicated to component medical societies 40 days prior to the annual session. Your committee believes that this resolution is impractical to implement and suggests that component medical societies having an interest in items of business before a forthcoming annual session confer with their respective members of the Board of Trustees and others who can inform them of such activities. Further, such societies can arrange to have called meetings for this purpose. Your reference

committee, therefore, recommends that Resolution No. 1 be not adopted.

The report of the reference committee was adopted.

RESOLUTION NO. 2
SECTION ON RADIOLOGY

Dr. George D. Purvis: WHEREAS, The Mississippi Radiological Society was organized and chartered in 1950 and has since met monthly in the interest of scientific and professional education, and

WHEREAS, This Society is presently composed of approximately 32 members who practice the specialty of radiology and whose desire it is to make more widely available the useful scientific information, instruction and services of this field of medicine which also includes the newer fields of nuclear medicine and medical radioactivity in general and is consequently becoming progressively more important, now, therefore, be it

Resolved, That this House of Delegates does authorize and establish a Section on Radiology and that Section 1, Chapter IV, By-Laws of the association, be amended by adding at the end of the section, "(h) Section on Radiology."

REPORT OF THE REFERENCE COMMITTEE ON MISCELLANEOUS BUSINESS

Your reference committee considered Resolution No. 2, subject: Section on Radiology, introduced by Dr. George D. Purvis on request. This resolution seeks amendment of Section 1, Chapter IV, By-Laws of the association, to create a Section on Radiology. Because of the small number of radiologists in the state and because of the fact that the Ainsworth resolution provides for specialty representation before the several scientific sections, your reference committee believes that creation of a Section on Radiology is not indicated at this time. We, therefore, recommend that Resolution No. 2 be not adopted.

The report of the reference committee was adopted.

RESOLUTION NO. 3, IN MEMORIAM

Dr. C. G. Sutherland: WHEREAS, There are absent from among our numbers 15 members who have been called by Divine Providence since the 93rd Annual Session; and

WHEREAS, Although we are grieved upon the passing of these beloved colleagues and friends, we are inspired by their lives of service and professional attainment; and

WHEREAS, This expression of our grief, deep affection, and respect should be recorded permanently among official records of the Mississippi State Medical Association, now, therefore, be it

Resolved, That this House of Delegates does mourn the passing of the following esteemed colleagues:

John G. Backstrom, Granada, October 30, 1961
Virgil M. Creekmore, DeKalb, December 8, 1961
Harmon E. Day, Duncan, September 11, 1961
Charles H. Harrison, Sr., Philadelphia, March 19, 1962
Walter B. Hickman, Louisville, February 27, 1962
Charles C. Hightower, Jr., Hattiesburg, July 17, 1961
Kutchew T. Klein, Meridian, June 22, 1961
George W. Land, Louin, January 12, 1962
William L. Leake, Sr., Dundee, October 1, 1961
Clyde J. Lewis, North Meridian, December 2, 1961
Silvio A. Sabatini, Jackson, February 28, 1962
James P. Sharon, Seminary, January 5, 1962
Joseph D. Shields, Pine Ridge, February 16, 1962
Roy F. Spaulding, Arcola, February 22, 1962
James P. Synnott, Winona, March 18, 1962

ACTION OF THE HOUSE OF DELEGATES

Without objection, Resolution No. 3 was acted upon without referral and was unanimously adopted by the House of Delegates in silent tribute.

RESOLUTION NO. 4
REVISION OF BLUE SHIELD FEE SCHEDULE

Dr. Walter H. Simmons: WHEREAS, The basic Blue Shield fee schedule has not been revised since its introduction, and

WHEREAS, The Blue Cross rate of payments to the participating hospitals has been raised many times, and

WHEREAS, The Blue Cross-Blue Shield premium rates have been revised upward many times without explanation to the subscriber that only the hospitals were to receive more money, and

WHEREAS, The cost of practicing medicine has been constantly increasing, now, therefore, be it

Resolved, That the directors representing the Mississippi State Medical Association on the Board of Blue Cross-Blue Shield be directed to seek (1) a revision of the Blue Shield fee schedule to a more equitable share of the premiums collected, (2) institute a program of information to the general public showing the rate of division of the premium dollar between the Blue Cross-Blue Shield, and (3) investigate the feasibility of separating Blue Cross-Blue Shield into two separate entities, the one dealing strictly with hospitalization and the other dealing with fees to the doctors.

REPORT OF THE REFERENCE COMMITTEE ON MEDICAL PRACTICES

Your reference committee considered Resolution No. 4, subject: Revision of Blue Shield Fee Schedule, introduced in behalf of the Pearl River County Medical Society. The resolution asks that the association instruct the directors to seek a revision of Blue Shield fees to provide "a more equitable share of premiums collected, to institute a program of information to the general public showing the rate of division of premium dollar between Blue Cross and Blue Shield, and to investigate the feasibility of separating the Blue Cross and Blue Shield programs into two separate entities."

A stimulating and informative discussion was conducted with respect to this resolution and your committee is gratified to report that substantial improvements have been made with respect to benefits provisions of Blue Shield indemnity contracts. In view of these improvements, your committee feels that the resolution is not necessary and, therefore, recommends that it be not adopted.

Your reference committee especially appreciates the appearance of Mr. Richard C. Williams, Executive Director of the Mississippi Hospital and Medical Service, before our committee. Mr. Williams added substantially to our deliberations by supplying useful, pertinent, and encouraging information.

The report of the reference committee was adopted.

RESOLUTION NO. 5 COMPULSORY HEALTH CARE UNDER SOCIAL SECURITY

Dr. Eldon L. Bolton: WHEREAS, The Mississippi State Medical Association has, on numerous occasions, stated officially its unequivocal opposition to systems of socialized medicine and especially to compulsory federal health care of the aged under Social Security as proposed in H.R. 4222 and S. 909, the King-Anderson bills, and

WHEREAS, The association believes that a vast majority of all citizens may secure all necessary medical care through private means and that locally controlled programs of medical care for the indigent are sufficient and desirable, now, therefore, be it

Resolved, That this House of Delegates does reaffirm its opposition to H.R. 4222 and S. 909 and all related or similar measures.

REPORT OF THE REFERENCE COMMITTEE ON MISCELLANEOUS BUSINESS

Your reference committee considered Resolution No. 5, subject: Compulsory Health Care Under Social Security, introduced by Dr. Eldon L. Bolton, in behalf of the Coast Counties Medical Society.

Your reference committee concurs in this resolution which reaffirms our opposition to H.R. 4222 and S. 909, the King-Anderson bills, and recommends that the resolution be adopted.

The report of the reference committee was adopted.

RESOLUTION NO 6 LIABILITY SHIELD FOR TISSUE COMMITTEES

Dr. George D. Purvis: WHEREAS, Under existing statutes in the State of Mississippi, physicians serving on tissue committees and other special research committees or disciplinary committees in the ordinary performance of their assignments within their professional organizations or institutions may be held fully liable for any statements or actions of the committee in carrying out their ordinary duties and have no immunity from law suits either from aggrieved physicians or from patients, and

WHEREAS, The transactions of such committees may be subpoenaed and used as legal evidence against physicians in mal-practice suits or against institutions, and

WHEREAS, The threat of such legal liability now seriously hampers the effective workings of such committees and thereby defeats the purpose for which they are created, and

WHEREAS, There are seven states that now have appropriate legislation which may be used to protect such committees and members thereof and this legislation is characterized as a "liability shield," now, therefore, be it

Resolved, That such liability shield laws as are currently in operation in other states be studied and that appropriate legislation be proposed to members of the Mississippi State Legislature for enactment into law at its next regular session, these laws being especially designed to provide liability protection to the members serving on such special committees and to declare the transactions of such committees as "privileged" and not subject to use as evidence in court.

REPORT OF THE REFERENCE COMMITTEE ON MISCELLANEOUS BUSINESS

Your reference committee considered Resolution No. 6, subject: Liability Shield for Tissue Committees, introduced by Dr. George D. Purvis

in behalf of the Central Medical Society. This resolution would require that suitable legislation be sought to provide a liability shield for those engaged in medical research activities, particularly with hospital staff tissue committees. Your reference committee concurs in this resolution and recommends it be adopted.

The report of the reference committee was adopted.

RESOLUTION NO. 7, INTERNSHIP AS A PREREQUISITE TO MEDICAL LICENSURE

Dr. Howard A. Nelson: WHEREAS, Current regulations governing licensing to practice medicine in the State of Mississippi do not require a period of approved internship, and

WHEREAS, It is the opinion of the Delta Medical Society that an approved internship of at least one year's duration should be a prerequisite of licensure to practice medicine in the State of Mississippi, now, therefore, be it

Resolved, That the Mississippi State Medical Association advocates a change in the provisions for licensure to practice medicine in the State of Mississippi whereby a period of approved internship of at least one year's duration be made a requirement for future licensing.

REPORT OF THE REFERENCE COMMITTEE ON MISCELLANEOUS BUSINESS

Your reference committee considered Resolution No. 7, subject: Internship Prerequisite to Medical Licensure, introduced by Dr. Howard A. Nelson in behalf of the Delta Medical Society. This resolution will require those licensed to practice medicine in Mississippi to have an approved internship of at least one year's duration. Your reference committee recommends that this resolution be referred to the Mississippi State Board of Health for study and investigation with the request that the Board of Health report to the association through the Board of Trustees.

The report of the reference committee was adopted.

RESOLUTION NO 8 POLICY OF NON-PARTICIPATION

Dr. R. J. Moorhead: WHEREAS, The House of Delegates of the American Medical Association has recorded its opposition to any legislation of the King-Anderson type, and

WHEREAS, There is a determined effort by the administration to promote passage of the King-Anderson bills now pending in the Congress as H.R. 4222 and S. 909, and

WHEREAS, The medical profession is best qualified to determine how the best medical care can be delivered, and

WHEREAS, Members of the medical profession have always in the past, and will continue in the future, to see to it that every person receives the best available medical care regardless of his ability to pay, and

WHEREAS, Among others, and in addition to the AMA, the following medical societies

Cerro Gordo County Medical Society (Mason City, Iowa)
Tarrant County Medical Society (Fort Worth, Texas)
Pickaway County Medical Society (Circleville, Ohio)
Shreveport Medical Society (Louisiana)
Oklahoma Academy of General Practice
Daviess-Martin County (Washington, Indiana)
New York State Medical Society
Minnesota Academy of General Practice
Brown County Medical Society (Green Bay, Wisconsin)
Monmouth Medical Society (Asbury Park, New Jersey)
Bernalillo County Medical Society (Albuquerque, New Mexico)
Eddy County Medical Association (Carlsbad, New Mexico)
Tri County Medical Society (Stephenville, Texas)
Shelby County Medical Society (Harlem, Iowa)
Calhoun Medical Society (Battle Creek, Michigan)
American Academy of General Practice
Orleans Parish Medical Society (New Orleans, Louisiana)

have passed resolutions similar to this one, now, therefore, be it

Resolved, That the House of Delegates of the Mississippi State Medical Association in regular session assembled in Jackson, Mississippi, on May 10, 1962, hereby declares that neither it nor its members will be a party to nor participate in any system of medical care which it and they determine to be contrary to the best interests of their patients, and be it further

Resolved, That a copy of this resolution be forwarded to the American Medical Association, the members of the Mississippi delegation to the Congress, and to the House and Senate of the Legislature of the Sovereign State of Mississippi.

REPORT OF THE REFERENCE COMMITTEE ON MISCELLANEOUS BUSINESS

Your reference committee considered Resolution No. 8, subject: Policy of Non-Participation, introduced by Dr. R. J. Moorhead, delegate from Yazoo County. The resolution would place the association on record as declaring that "neither it nor its members will be a party to nor partici-

pate in any system of medical care which it and they determine to be contrary to the best interest of their patients." Extended and lengthy discussion was heard with respect to this resolution. Your reference committee appreciated appearance of many members, officers, and Trustees before it in this connection. We believe that this matter should be studied to a greater extent and we recommend that Resolution No. 8 be referred to the Board of Trustees for study.

The report of the reference committee was adopted.

ADDITIONAL ACTIONS OF THE HOUSE OF DELEGATES

After reports of the Fraternal Delegates were heard, Dr. C. D. Taylor, Jr., Pass Christian, delivered the 1962 Distinguished Service Oration on the late Dr. E. C. Parker, Gulfport.

The President presented to the House of Delegates the following officers of the Woman's Auxiliary to the Mississippi State Medical Association: Mrs. A. T. Tatum, Petal, 1962-63 President; Mrs. John G. Egger, Drew, 1961-62 President; and Mrs. Mal S. Riddell, Winona, 1962-63 President-elect. Each addressed the House.

OFFICIAL ATTENDANCE

The official attendance was announced as being 1,303 with 643 physicians, 244 members of the Auxiliary, and 416 others, a new, all-time record.

Acting in behalf of the Coast Counties Medical Society, Dr. C. D. Taylor, Jr., invited the 95th Annual Session, May 13-16, 1963, to convene at Biloxi, Mississippi, and the invitation was accepted.

REPORT OF THE REFERENCE COMMITTEE ON RULES AND ORDER OF BUSINESS

Your Reference Committee on Rules and Order of Business commends the Speaker and Vice Speaker for the outstanding manner in which they have conducted business before this House of Delegates. We feel that these officers are deserving of our appreciation for just, impartial, but always kindly consideration of our respective needs and requirements.

Your reference committee desires at this time to offer the following resolution for consideration by this House of Delegates:

WHEREAS, The 94th Annual Session of the Mississippi State Medical Association has been conducted at Jackson, Mississippi, during the period May 7-10, 1962, and

WHEREAS, The present annual session has been the largest and one of the most profitable and enjoyable meetings in the 106 year history of our association, now, therefore, be it

Resolved, That expressions of deep appreciation are made to the officers, Trustees, and Council on Scientific Assembly for the stimulating and professionally profitable program; to the efficient managements of the participating hotels, particularly the Heidelberg and King Edward; to the press, radio and television for coverage of our activities; to the gracious ladies of the Auxiliary who always contribute so substantially to our meetings; to the several technical exhibitors and the courteous professional service representatives; to our scientific exhibitors; and to the National Aeronautics and Space Administration, the United States Air Force Aerospace Medical Center, and to the Honorable John C. Stennis for their unique and historic contributions to this annual session in the Symposium on Space Medicine, and to all those who shared in the responsibilities of planning and conducting this great annual session.

Your committee recommends adoption of this resolution.

The report of the reference committee was adopted.

REPORT OF THE ELECTION OF OFFICERS

President-elect: John G. Archer, Greenville

Vice Presidents: S. Jay McDuffie, Nettleton; George E. Gillespie, Jackson; Victor E. Landry, Lucedale

Associate Editor: George H. Martin, Vicksburg

Delegate to AMA: George E. Twente, Jackson

Alternate Delegate to AMA: Stanley A. Hill, Corinth

Board of Trustees: C. W. Patterson, Rosedale, District 1; Mal S. Riddell, Winona, District 4; John B. Howell, Jr., Canton, District 5; Lamar Arrington, Meridian, District 6; W. E. Moak, Richton, District 7

Council on Budget and Finance: J. T. Davis, Corinth

Council on Medical Education: William O. Barnett, Jackson

Council on Constitution and By-Laws: Frank C. Massengill, Brookhaven

Council on Legislation: John G. Egger, Drew, District 1; Robert E. Shands, New Albany, District 2; Frank M. Davis, Corinth, District 3

Judicial Council: E. LeRoy Wilkins, Clarksdale, District 1; Rhea L. Wyatt, Holly Springs, District 2; Thomas N. Braddock, West Point, District 3

Council on Medical Service: Edward Pennington, Ackerman, District 4; Temple Ainsworth, Jackson, District 5; Guy T. Vise, Meridian, District 6

Blue Cross-Blue Shield Directors: S. Lamar Bailey, Kosciusko; M. Q. Ewing, Amory; Joseph B. Rogers, Oxford; James G. Thompson, Jackson

Board of Trustees, Mental Institutions: J. K. Avent, Sr., Grenada; A. V. Beacham, Magnolia; Victor E. Landry, Lucedale; H. C. Ricks, Sr., Jackson; Mal S. Riddell, Jr., Winona

Fraternal Delegates: To Alabama, Leon H. Ratliff, Belmont; to Arkansas, C. G. Sutherland, Jackson; to Louisiana, Victor E. Landry, Lucedale; to Tennessee, Robert P. Sayle, Tunica

Dr. Patterson was elected to serve the unexpired term of Dr. John G. Archer as District 1 member of the Board of Trustees upon Dr. Archer's resignation to enter the office of President-elect.

SUPPLEMENTAL REPORT OF THE BOARD OF TRUSTEES

Dr. H. H. McClanahan, Jr.: **Committee on Publications.** The Committee on Publications, consisting of the Editor, the two Associate Editors, and three additional members appointed by the Board of Trustees, is a constitutional committee of the Board, responsible thereto. The committee, recognizing the responsibility of the Board for the policy, management, and mission of the JOURNAL MSMA, stated that it is "unanimous in the belief that supervision of the JOURNAL should be reposed totally and completely in the Board of Trustees because of (1) the large amount of revenues and expenditures related to its operation, (2) its importance as the association's primary medium of scientific, socioeconomic, and policy communication, and (3) its representation of the association nationally and internationally."

The Committee on Publications has recommended that a need for those members other than the Editor and Associate Editors no longer exists and proposes amendment of the Constitution and By-Laws as follows:

(1) *Constitution.* Amend Section 1, Article VI, to read: "The general officers of the association shall be a President, President-elect, three Vice Presidents, one from each Supreme Court District, Secretary-Treasurer, Speaker, and Vice Speaker."

(2) *Constitution.* Amend Section 2, Article VI, to read: "The President, President-elect, and Vice Presidents shall hold terms of one year. The Secretary-Treasurer, Speaker, and Vice Speaker shall be elected for terms of three years."

(3) *By-Laws.* Amend Chapter IX to delete Section 9, Editorial Council, altogether.

(4) *By-Laws.* Amend Chapter X to delete Section 4, Committee on Publications, substituting therefor: "Section 4. Committee on Publications. The Committee on Publications shall consist of the Editor and two of the Associate Editors, all appointed by the Board of Trustees for terms of one year each. The chairman of this committee shall be designated by the Board. The committee shall implement instructions and policies of the Board of Trustees relating to the JOURNAL of the MISSISSIPPI STATE MEDICAL ASSOCIATION. Additionally, the committee shall study and recommend to the Board policy proposals relating to organization and production of the JOURNAL, reporting annually its deliberations."

The Board of Trustees concurs in the proposal originating with the present Committee on Publications. It is, therefore, presented to this House of Delegates where it must lie on the table for one year. In the meanwhile, the Board recommends that the proposal be discussed by each component medical society and that it be acted upon at the 95th Annual Session in 1963.

CLOSING CEREMONIES

There being no further business, the Speaker returned the gavel to the President, Dr. Long, who addressed his appreciation and commendation of the general officers, Board of Trustees, and various bodies to the House. The Oath of Office was administered to Dr. C. P. Crenshaw, President-elect, by Dr. H. H. McClanahan, Jr., Chairman of the Board of Trustees, after which Dr. Crenshaw addressed the House. Dr. James Grant Thompson presented the Thompson Memorial Past President's Pin to Dr. Long.

The House of Delegates was adjourned *sine die* at 4:07 p.m., May 10, 1962.

DIAL ROOM SERVICE FOR FREE ANALYSIS

Chicago's newest motel, the Imperial Inn, is planning to offer guests the services of a house psychiatrist. "Why not?" asked the manager. "After all, there's a couch in every room."

MEETINGS

NATIONAL AND REGIONAL

American Medical Association, Clinical Meeting, Nov. 25-28, 1962, Los Angeles, Calif. F. J. L. Blasingame, Executive Vice President, 535 N. Dearborn St., Chicago 10, Ill.

American Academy of General Practice, April 1-4, 1963, Chicago, Ill. Mr. Mac F. Cahal, Executive Director, Volker Blvd., at Brookside, Kansas City 12, Mo.

American College of Surgeons, Clinical Congress, Oct. 15-19, 1962, Atlantic City. William E. Adams, 40 E. Erie St., Chicago 11, Secretary.

International College of Surgeons, XIII Biennial International Congress, Sept. 9-13, 1962, New York. W. F. James, Executive Director, 1516 North Lake Shore Drive, Chicago 10, Ill.

Southern Medical Association, Nov. 12-15, 1962, Miami Beach, Fla. Mr. Robert F. Butts, Executive Director, 2601 Highland Ave., Birmingham 5, Ala.

STATE AND LOCAL

Mississippi State Medical Association, May 13-16, 1963, Biloxi. Mr. Rowland B. Kennedy, Executive Secretary, 735 Riverside Drive, Jackson.

Mississippi Chapter, American College of Surgeons, Nov. 16, 1962, Heidelberg Hotel, Jackson. Edward C. Hamilton, 14th St. and 25th Ave., Gulfport, Secretary.

Mississippi Academy of General Practice, Annual Meeting, Sept. 26-27, 1962, Hotel Heidelberg, Jackson. Miss Louise Lacey, Executive Secretary, P. O. Box 1435, Jackson.

Amite-Wilkinson Counties Medical Society, First Tuesday March, June, September, December. S. E. Field, Centreville, Secretary.

Central Medical Society, First Tuesday Monthly, 6:30 p.m., Robert E. Lee Hotel, Jackson. George E. Gillespie, 514-A East Woodrow Wilson Drive, Jackson, Secretary.

Claiborne County Medical Society. D. M. Segrest, Port Gibson, Secretary.

Clarksdale and Six Counties Medical Society, Second Wednesday March and November, 2:00 p.m., Clarksdale. Whitman B. Johnson, Jr., 645 Evelyn Ave., Clarksdale, Secretary.

Coast Counties Medical Society, First Wednesday March, June, September, and November. Charles N. Floyd, 1412-23rd Ave., Gulfport, Secretary.

Delta Medical Society, Second Wednesday April and October. Howard A. Nelson, 308 Fulton St., Greenwood, Secretary.

DeSoto County Medical Society, Second Thursday January, April, July, and October, 1:00 p.m., Hernando Motel Cafe, Hernando. L. L. Minor, Route 9, Memphis 9, Tenn., Secretary.

East Mississippi Medical Society, First Tuesday February, April, June, August, October, and December. Hugh S. Rayner, Jr., 1216-21st Ave., Meridian, Secretary.

Homochitto Valley Medical Society, Fourth Tuesday Monthly, 7:30 p.m., Natchez Country Club, Natchez. W. T. Colbert, Natchez General Hospital, Natchez, Secretary.

North Central District Medical Society. Second Wednesday March and September. Robert B. Townes, Jr., 1196 Mound St., Grenada, Secretary.

Northeast Mississippi Medical Society, Second Tuesday March, June, September, and December, Tupelo. Thomas W. Wesson, 421 Main St., Tupelo, Secretary.

North Mississippi Medical Society, First Thursday January, April, and October, Oxford. Marcus E. Morrison, 512 Van Buren Ave., Oxford, Secretary.

Pearl River County Medical Society, Second Monday March, June, September, and December. Samuel O. Massey, Jr., 220 E. Canal St., Picayune, Secretary.

South Mississippi Medical Society, Second Thursday March, June, September, and December. Thomas F. Puckett, 715 Arledge St., Hattiesburg, Secretary.

Tri-County Medical Society, Second Tuesday March, June, September, and December. A. V. Beacham, Magnolia, Secretary.

West Mississippi Medical Society, Second Tuesday January, April, July, and October, 7:00 p.m., Old Southern Tea Room. Vicksburg. Tom H. Mitchell, The Street Clinic, Vicksburg, Secretary.

JOURNAL OF THE
MISSISSIPPI STATE
MEDICAL ASSOCIATION

Volume III, Number 8

August 1962

EDITORIALS

Far Above Cayuga's Waters: Crash!

I

A MID-AIR COLLISION IN 1917 was the unlikely genesis of today's most massive effort to determine exactly what happens to the human body when mobile Americans engage in the fratricidal business of applying two tons of speeding metal to one another. The Cornell University Automotive Crash Injury Research project—ACIR to thousands who work in its behalf—almost died aborning when Hugh de Haven, a cadet in the Royal Canadian Air Force, flew his World War I trainer into another airplane. He sustained multiple fractures and internal injuries, while the other pilot walked away hardly scathed.

During six months of hospitalization, de Haven arrived at the tenuous conclusion that something other than fate played a role in what happened. Then and there, he resolved to find out what and why. Subsequently, his early studies of free fall phenomena and aircraft accidents seemed to demonstrate that a human being could absorb enormous impact forces if the trauma were distributed over the body area. With this fragmentary and inconclusive finding, de Haven opened a new era in transportation safety.

II

In 1942, de Haven helped establish the Crash Injury Research project at Cornell University Medical College in New York. Emphasis was on aviation mishaps and evidence piled up indicating that there was a causal relationship between such human injury and identifiable parts of airplanes. It was becoming apparent, too, that automobile accidents bore striking similarities in injury-producing characteristics.

Nearly a decade later, the Indiana State Police and the U. S. Army, independently of each other, began investigation of impact factors in fatal automobile accidents. While the Hoosier troopers were simply doing their job, the Army found a more compelling reason: the leading cause of death among its personnel was the fatal automobile accident during off duty hours. A year later, de Haven organized Cornell's ACIR, continuing as its director until his retirement in 1955.

A massive data reservoir grew with the project. Physicians, medical societies, departments of health, police organizations, hospital associations, and safety councils pooled their resources to help. Every detail of an injury- and death-producing automotive accident became a matter of major importance and participation was obtained from 21 states and five metropolitan areas. Now, auto crashes which claim the lives of nearly 40,000 annually and maim another million and a half are reenacted daily in Cornell's electronic computers.

III

Say the ACIR investigators: "There is little basis for doubt that the incidence and severity of crash injuries and deaths on the nation's highways are subject to control by the systematic modification of automotive design." In fewer words, Detroit must build them to crash.

ACIR officials meet regularly with representatives of automobile manufacturers. Liaison has been built with traffic safety and law enforcement agencies. Medical organization, beginning with A.M.A.'s Committee on Medical Aspects of Automotive Safety down through state associations and county societies, is vitally concerned. At the 94th Annual Session, the Mississippi State Medical Association's Section on Surgery addressed its entire program to this demanding matter.

Robert A. Wolf, present project director at Cornell, says, "ACIR has developed a new approach to this urgent problem. We try, by means of statistical analysis, to isolate the sources of impact injury and reason that if these sources can be identified, they can be corrected. Although the latest model cars incorporate many design changes directed toward safety, much more remains to be done."

This medically-oriented program is preventive medicine at its best. Moreover, it is an American team effort with the physician in the forefront hoping to reduce the carnage on the public thoroughfares. Far above Cayuga's waters, they want to know why they die when they crash.—R.B.K.

It Costs Less Than the Coffee Break

This benefit is a bargain, says the *Journal of American Insurance,* addressing itself to workmen's compensation coverage costs for 43 million members of the U. S. work force. So much so, in fact, that the protection costs industry less than a third as much as coffee breaks and represents only $35 per year out of more than the $1,100 paid each worker in fringe benefits.

"Loss prevention and rehabilitation have played a key role in reducing workmen's compensation costs," the *Journal* continues. From a national viewpoint, employers pay only 70 cents per $100 of payroll for compensation insurance. This is contrasted with a cost of $2.40 per $100 of payroll for coffee breaks and rest periods. During 1960, workmen's compensation benefits amounted to $1.28 billion, more than twice as much as was paid ten years before. Yet, premium costs advanced only 12 per cent in the same period.

Rehabilitation of the occupationally disabled—getting the injured worker back to maximum productivity—has been the announced objective of the association through its Committee on Occupational Health. The authoritative report of the insurance industry offers encouragement that this objective is being realized as job-incurred deaths and disabling injuries decline in an inverse proportion to the expanding national economy.—R.B.K.

Jack's Black Tuesday

There was a revival of righteousness in the United States Senate on July 17 with the unceremonious defeat of the Anderson-Javits amendment to H.R. 10606, the administration's last ditch try for compulsory federal medical care for the aged under Social Security. But as far as the administration was concerned, it was black Tuesday and the occupant of 1600 Pennsylvania Avenue and his cohorts let just that be known.

There are obviously many reasons why the heavily Democratic senate defeated this measure. Not among the least of these was the rank hypocrisy with which the amendment was presented. The proponents apparently figured that the nation ought to be bored for the simples and they were right, too, in the case of anybody who swallowed the notion that the Anderson-Javits proposal was a "compromise" of the King-Anderson bill.

To begin, the Social Security funding principle was an integral part of the amendment. This keystone in the arch of socialism wasn't even slightly camouflaged. Instead of limiting the tax financed largess—usually called benefits—to those over 65 who are under compulsory Social Security, the amendment would have covered every American past the sixth and a half decade mark, physicians included! This "compromise" had all the earmarks of swapping off hamburger for steak. And 52 senators knew it, too.—R.B.K.



Copyright 1962, Mississippi State Medical Association

"It's from the 'American Association for the Advancement of Science' requesting that you don't write any more articles."

Book Reviews

Medical Pharmacology: Principles and Concepts. By Andres Goth, M.D., professor of pharmacology and chairman of the department, University of Texas Southwestern Medical School, Dallas, Texas. 551 pages. St. Louis: The C. V. Mosby Company, 1961. $11.00.

Medical Pharmacology: Principles and Concepts was written for students and practitioners. The student will find this book an interesting and informative introduction to pharmacology. The book is quite easy to read and is practical. The size of the book is small, and the discussion of each drug is brief, clear, and to the point with no words wasted.

The basic drugs are discussed including uses, chemical structure, pharmacological effects, mode of action, dosage and duration of action, and toxicity indications, and related drugs are mentioned but not elaborated upon at great length. For instance, under the cholinergic drugs, neostigmine is discussed quite adequately while the newer drugs related to neostigmine are merely mentioned and briefly discussed.

While this type of textbook is interesting and makes it easy for the student to gain basic knowledge of pharmacology and to retain enough to pass his examination, it could certainly not be used as a reference book or for detailed, extensive information on any particular aspect of pharmacology. However, the practicing physician can certainly understand and better prescribe the new drugs and the nearly new drugs putting them in their proper perspective after spending a night or two reviewing this compact and informative book.

OSMOND D. DABBS, JR., M.D.

Carcinoma of the Cervix. By John B. Graham, M.D., chief gynecologist, Roswell Park Memorial Institute; Luciano S. J. Sotto, M.D., consultant in gynecology, Philippine General Hospital, and Frank P. Paloucek, M.D., attending gynecologist, Roswell Park Memorial Institute. 487 pages with illustrations. Philadelphia: W. B. Saunders Company, 1962. $14.00.

The authors of this book discuss carcinoma of the cervix from several standpoints. As a result, portions of the discussion (particularly the chapters on frequency, etiology, pathology, and diagnosis) are particularly suited to the needs of the medical student and intern. Other chapters, however, assume a degree of knowledge and experience on the part of the reader that decreases their value to the beginner or to one who lacks special training in this field. Especially is this so in the chapters dealing with radiation physics, radiotherapy, and surgical treatment.

One gets the impression that statistical analyses in the form of charts are used too freely. In addition, the reviewer feels that the chapters on surgical treatment could be improved by the inclusion of a more detailed pictorial review of the operative procedures employed.

An excellent discussion of the pros and cons of radiation versus surgery in the treatment of cancer of the cervix is included. The seriousness of either modality is emphasized, and the complications and shortcomings of each are lucidly presented.

The authors have given their personal philosophy concerning cancer of the cervix based on their own extensive personal experience as well as the experience of others. The treatment which they employ, in both radiation and surgical therapy, is given in enough detail to make this book an excellent source of reference in this regard.

This book is recommended for residents in specialty training and practicing physicians who treat cancer of the cervix.

C. G. SUTHERLAND, M.D.

Domestic Journals

Population Genetics Applied to Live Poliovirus Vaccine. Joseph L. Melnick: Am. J. Pub. Health 52:472-483 (March) 1962.

This is a timely paper on the uses and abuses of live poliovirus vaccine.

Polioviruses, like all other living things, mutate. In doing so they sometimes alter their virulence. By careful selection of the progeny of single less virulent virus particles several groups of investigators were able to develop strains with reduced neurotropic properties in monkeys. These mutant strains were painstakingly studied by Sabin and co-workers, and by others and, after a series of trials in humans, were fed to millions of persons.

LITERATURE / Continued

An important feature of the continuing study of these viruses has been their evaluation after recovery from vaccinated individuals.

In parallel studies Koprowski, Cox, et al. isolated similar strains, but theirs were found to be slightly more neurotropic than the Sabin strains. The Public Health Service has approved for licensing only those which are not more virulent than the Sabin strains, and which are at least as immunologically potent.

It is emphasized that "all strains, regardless of how highly attenuated, retain the property of multiplying and destroying cells in the monkey's spinal cord."

It was hoped that the vaccine strains would continue to breed true, i.e., not regain their neurotropic properties. Extensive studies on strains recovered from vaccinated persons in the U. S., Mexico, Berlin, West Germany, Yugoslavia, Israel, and elsewhere have demonstrated that this is not always the case. Reversions do sometimes occur and neurotropic progeny do appear in the stools of certain vaccinated individuals, some of whom develop poliomyelitis. The clear implication is that vaccinated persons, even though they may not develop clinical disease, do constitute a hazard to unvaccinated persons. It is interesting that Sabin-vaccinated children and their contacts often excrete viruses that are more virulent than the Lederle-Cox and Koprowski strains which were rejected by the PHS for their higher initial neurovirulence for monkeys.

To minimize the risk to unvaccinated persons the live poliovirus vaccines should not be given on a haphazard, individual basis. Rather, the entire population of a community should be vaccinated simultaneously. "At the very least, all members of a family should be vaccinated at the same time."

Reference is made to recent discoveries that certain cations have a highly useful stabilizing effect upon the polio vaccines. Specifically, in the presence of $AlCl_3$, virus particles which have reverted to their virulent form are rendered more heat labile. Conversely, attenuated virus particles are more heat resistant. Thus by heating the vaccine to 50° centigrade in 10 mM $AlCl_3$, virulent mutations are removed without damage to the vaccine.

The Mg ion also has a useful stabilizing action. In its presence the vaccine may be kept for at least 25 days at room temperature without showing any inactivation. In addition, this ion has another highly desirable effect. From time to time unwanted virus contaminants appear in monkey kidney cultures. One of these is a vacuolating tumor virus, the SV_{40} virus. Though it has not been shown to be pathogenic for humans it does fall within the papova tumor virus group, and it would be the better part of valor not to feed it to humans. In the presence of $MgCl_2$ at 50° centigrade, this virus is quickly inactivated while the polio viruses remain stable.

Other cations are under intensive investigation in an effort to further improve the live poliovirus vaccines.

T. J. Brooks, Jr., M.D.

PERSONALS

W. Winston Barnard of Clarksdale has begun a residency in psychiatry at the Indiana University Medical Center in Indianapolis. Dr. Barnard was awarded a training grant from the National Institute of Mental Health for the three-year course. He received his medical degree from the University of Tennessee and interned at John Gaston Hospital in Memphis. Dr. Barnard had practiced in Clarksdale for nine years and during that time had served as president of the Clarksdale and Six Counties Medical Association and as delegate to MSMA for four years.

John Frazier has been named president of the Columbus Lions Club.

Douglas B. Haynes has assumed his duties as health officer for Coahoma County. Dr. Haynes received his medical degree from the University of Tennessee Medical School and interned at John Gaston Hospital in Memphis.

Samuel Johnson of Jackson attended the annual three-day meeting of the Flying Physicians Association, which met in Anchorage, Alaska, in June. Dr. Johnson, along with 36 other Flying Physicians, flew his private plane over the 1,550-mile flight from Edmonton, Canada, to Anchorage. The group followed the wilderness route of the Alcan highway.

Barry P. McIntosh of Hernando has announced the association of Malcom D. Baxter in the practice of medicine and surgery.

Eric P. Robbins of Brookhaven has announced the reopening of his office. Dr. Robbins was recalled to active military service in October.

Dr. Culpepper Named AMA Vice President

Dr. J. P. Culpepper, Jr., of Hattiesburg was named vice president of the American Medical Association during the organization's 111th Annual Meeting held June 24-28 in Chicago.

A delegate from MSMA to the AMA House of Delegates for 12 years, Dr. Culpepper succeeds Dr. Eustace A. Allen of Atlanta, Ga.



Dr. Culpepper

As a longtime worker in medical organization, Dr. Culpepper has held numerous offices in the Southern Medical Association including councilor for Mississippi, vice president, and president for the term 1956-57. He is a member of the Board of Directors of the Mississippi Academy of General Practice and a member of the American Academy of General Practice.

The new vice president has served as president of his local medical group, the South Mississippi Medical Society, and is a member of the Gulf Coast Clinical Society. He is also affiliated with numerous surgical organizations.

Dr. Culpepper is married to the former Miss Mildred Fairley of Hattiesburg. They have one son, Dr. J. P. Culpepper, III, currently a resident in general surgery at Ochsner Foundation Hospital in New Orleans.

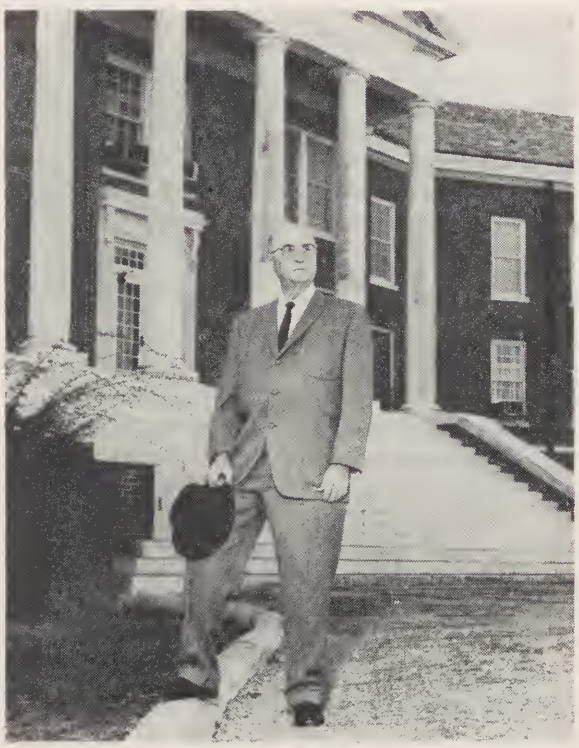
Health care for the aged, medical discipline, composition of the AMA Board of Trustees, a study of the American Board of Abdominal Surgery, relations with the American College of Surgeons, and voluntary health insurance were among the major subjects acted upon by the AMA House of Delegates during the 111th Annual Meeting.

Dr. Edward R. Annis of Miami, Fla., chairman of the AMA National Speakers Bureau and well-known spokesman in the campaign against the King-Anderson Bill, was chosen president-elect of the association. Dr. Annis will become president at the 1963 annual meeting in Atlantic City, succeeding Dr. George M. Fister of Ogden, Utah, who assumed office at the June 26 inaugural ceremony.

Other officers named at the closing session of the AMA House were Dr. Norman A. Welch, Boston, re-elected speaker of the House; Dr. Milford O. Rouse, Dallas, Texas, re-elected vice speaker, and Dr. Charles L. Hudson, Cleveland, Ohio, and Dr. Wesley W. Hall, Reno, Nev., re-elected to five-year terms on the Board of Trustees.

Ole Miss Building Named For Dr. B. S. Guyton

The University of Mississippi's historic old medical school building was recently named the "B. S. Guyton Building" in honor of Dr. Billy Sylvester Guyton, dean emeritus of the University



Dr. B. S. Guyton surveys the University of Mississippi campus from the vantage point of the old medical school building, which was recently named in his honor.

School of Medicine and longtime leader in Mississippi medicine. The action was taken on the vote of the Board of Trustees, Institutions of Higher Learning.

Located at the west end of the University's Oxford campus, the three-story structure was originally built as a hospital and was used for the medical school courses until the opening of the four year school in Jackson in 1955. It now serves as headquarters for the U. S. Army and the U. S. Air Force ROTC units and continues to house the facilities of the Student Health Service.

Dr. Guyton has been a resident of the University-Oxford community for 47 years. He joined the Ole Miss faculty in 1915 and for five years taught pathology and bacteriology and later lectured in minor surgery. He became dean of the School of Medicine in 1935 and dean emeritus in 1946. He is still in active practice as senior member of the Guyton Clinic.

From 1950-51 Dr. Guyton served as president of MSMA and has also served as president of the Louisiana-Mississippi O & O Society. He is a member of AMA, a Fellow of the International College of Surgeons; and a Fellow of the American Academy of Ophthalmology and Otolaryngology. He earned his M.D. at the University of Virginia and his Oph.D. at the University of Colorado. He has a B.S. degree from Mississippi College and B.S. and M.A. degrees from the University of Mississippi.

Dr. Guyton was married to the late Kate Smallwood Guyton of New Albany. His eldest son, Dr. Jack Guyton, is the head of the Department of Ophthalmology of the Henry Ford Hospital in Detroit, Mich. His second son, Bill Guyton, is a hydrologist with offices in Austin and Houston, Texas. His third son, Dr. Arthur C. Guyton, is professor and chairman of the Department of Physiology and Biophysics of the University of Mississippi School of Medicine. His daughter, Mrs. Keith Smith, lives in Charleston, W. Va.

Dr. Parsons Conducts Far East Lecture Tour

Dr. Williard H. Parsons of Vicksburg, who has been commissioned as civilian consultant to the surgeon General of the Army for the Far East assignment, is currently conducting a lecture tour and inspection of military hospitals in the Far East.

The mission is part of a program being carried out by the Army to provide improved medical care in military hospitals. Physicians in the various medical specialties are assigned annually to inspect facilities and participate in a teaching program for the staffs of Army hospitals.

Dr. Parsons left from New York the last of June. His month-long tour will include hospitals in Japan, Okinawa, Seoul, Hawaii, and other points. En route to the Far East, he was scheduled to present a series of lectures in Europe and the Middle East with several days' teaching scheduled at the American University in Beirut, Lebanon.

The Vicksburg surgeon is one of the founders and chief of staff of the Vicksburg Hospital. He is a member of the Board of Regents of the American College of Surgeons and past president of the Southeastern Surgical Congress. He serves as associate professor of surgery at the University of Mississippi School of Medicine and attending surgeon at the University Hospital.

Among other medical affiliations, Dr. Parsons holds membership in the Royal Society of Great Britain and Societe International de Chirugie.

Dr. Parsons will return to Vicksburg about mid-August.

FDA Seizes Fake Diagnostic Machine

A nation-wide seizure campaign to stop the use of a fake diagnostic machine found in offices of hundreds of health practitioners has been announced by the Food and Drug Administration.

The announcement follows a June 11 refusal by the United States Supreme Court to review actions of lower courts banning the device from interstate shipment.

FDA Commissioner George P. Larrick called the machine "a peril to public health because it cannot correctly diagnose any disease." He said "thousands of patients are being hoodwinked by its use into believing they have diseases which they do not have, or failing to get proper treatment for diseases they do have."

The machine, known as the Micro-Dynameter, is supposed to be effective for detecting scores of serious diseases by measuring electric currents generated by metal plates applied to areas of the body. FDA scientists proved that the only condition measured by the device is the amount of perspiration on the skin of the patient.

Commissioner Larrick said FDA would undertake to seize the devices "wherever we can find

them" but because of the large number in use it would not be possible to do this in a short time. He said that FDA district offices throughout the nation would seek the cooperation of state and local authorities in rounding up the device.

FDA action against the Micro-Dynameter device began with an injunction suit in the Federal District Court at Chicago. In June 1961 after a five-day trial, that court ordered Ellis Research Laboratories, Inc., and Robert W. Ellis, the president, of Chicago, and all persons associated with them, to stop making false and misleading claims for the electrical device which has been distributed to hundreds of local health practitioners throughout the United States. Further distribution of the device was prohibited and the defendants enjoined from further use of numerous leaflets, booklets and reprints representing and suggesting that the machine is adequate and effective for diagnosing practically all disease conditions, as well as the health status of men. The court found that claims that the machine is capable of diagnosing disease are false and misleading.

The case was appealed on the grounds that the device was exempt from the Federal Food, Drug, and Cosmetic Act because it was used only by licensed practitioners. On March 22, 1962, the U. S. Court of Appeals at Chicago ruled that "under the findings of fact in the instant case, the Micro-Dynameter is not safe for use even in the hands of a licensed practitioner." The court said: "a device whose labeling claims it to be an aid in diagnosing as many diseases as this one, when in fact it is not, is unsafe for use no matter who uses it."

In technical terms, the Micro-Dynameter is a string galvanometer—a rather simple device for measuring electric currents—which has been put into an impressive cabinet. Over 5,000 of the machines have been sold with some 300 known to have been distributed during the past three years. They sold for as much as $875 each.

The firm promoted the sale of the device by direct distribution of literature, by advertisements, by "seminars" held to demonstrate the device, and by nationwide sales efforts.

It was claimed that the machine determined the presence of disease by measuring the weak electric current generated from two metal plates applied to various parts of the body. FDA scientists proved, and the court agreed, that current flowing between the electrodes is not dependent on the health or diseased condition of the body but on the amount of moisture present on the skin.

In the District Court trial government witnesses testified that the readings on the device were influenced, among other things, by washing the hands in water, alcohol or acetone and drying them; by clapping or spanking the hands; by holding the hands over the head; or by placing the localizing electrode near a large vein or artery.

The electrodes are connected by wires to the body of the device, contained in a metal housing which bears on its face a numbered scale and several knobs. Electric currents passing through the device cause a light playing on the scale to deflect with varying degrees of magnitude. The knobs on the face of the device, when turned, change the electrical circuits within the device so that the scale reading is changed. But the FDA medical scientists found no relationship whatever between the positions of the knobs and the health of the person to whose skin the electrodes are applied.

During the trial, evidence was introduced as to use of the machine on two cadavers. The readings given by the "Micro-Dynameter" showed little or no differences between a cadaver and a living body.

The promotional literature claimed that the "Micro-Dynameter" was capable of diagnosing practically all diseases.

Saunders Announces Recent Publications

W. B. Saunders Company features the following recent books in their full page advertisement appearing elsewhere in this issue:

KLINE AND LEHMANN—HANDBOOK OF PSYCHIATRIC TREATMENT IN MEDICAL PRACTICE

Tells the nonspecialist which psychiatric patients he should and should not treat, why he should treat them, and exactly how to manage these patients.

FINNESON—DIAGNOSIS AND MANAGEMENT OF PAIN SYNDROMES

Step-by-step management of commonly met problems of pain, ranging from headache to intractable pain due to cancer.

WILLIAMSON—OFFICE PROCEDURES

Step-by-step instructions with over 1,000 illustrations on how to perform office techniques, ranging from removal of excess cerumen to cautery of the cervix.

State Board Assumes Control Over Radioactive Materials

As of July 1 all users of all types of radioactive materials come under the licensure and surveillance of the State Board of Health, according to Dr. A. L. Gray, state health officer.

"Users of radioactive materials produced by the Atomic Energy Commission are known to us; but no available list of radium users exists, since this element is fabricated and marketed by private concerns," said Dr. Gray.

Since radium is included in the categories of radioactive materials required by law to be licensed by the State Board of Health, all persons, institutions and industries who have any radium and have not submitted an application for license should contact the State Board of Health without delay, according to Dr. Gray.

The Atomic Energy Commission has turned over to the State Board of Health copies of all of the licenses of the 46 current licensees in Mississippi, which have approximately 400 sources of nuclear radiation.

These sources have now become the responsibility of the State Board of Health, as well as all pending and new applications for the use of radiation energy.

Dr. Gray said that the first application for license under the new program was issued to the Vicksburg Hospital for radium.

The new regulatory program, according to Dr. Gray, is to insure public health and safety by allowing only qualified users to possess radioactive materials.

"Because of public health and safety capabilities immediately available within the state, the new program will also be an impetus to industrial, medical, educational and research progress," stated Dr. Gray.

In general, licenses are issued to members of legally licensed health professions, commercial and industrial firms, and research, educational and medical institutions.

The application for a license is evaluated on the basis of the applicant's training and experience to use the material in such a manner as to protect health and minimize danger to life and property.

Taken into consideration also is the adequacy of the applicant's equipment, facilities and procedures.

Robert R. Rester, radiological health supervisor for the State Board of Health, recently spent four weeks with the Atomic Energy Commission in Washington, at the Commission's expense, in further orientation on the methods and procedures required to implement the Atomic Energy Act as it pertains to the State Board of Health assuming regulatory control over radioactive materials. Previously Rester had trained for more than a year with the Atomic Energy Commission.

His associate, John E. Tabor, health physics technician, joined him in Washington for two weeks' training in regulatory problems.

"These specialists have demonstrated sufficient competency to carry the burden of licensure and surveillance in Mississippi," said Dr. Gray.

"The x-ray and fluoroscope surveillance program which was initiated by this team 18 months ago, primarily as a result of the cooperative efforts of the medical, dental, and hospital professions, is now nationally recognized as probably the most efficient and effective voluntary program in the nation and is to be copied by many states," Dr. Gray stated.

St. Dominic Hospital Establishes Press Desk

The St. Dominic-Jackson Memorial Hospital has established a press relations desk for the mutual benefit of the news media and the hospital, according to Sister Rita Rose, O.P., administrator.

Mrs. Barbara Donahoe has been appointed the press officer and all future releases will be cleared over her desk.

"St. Dominic Hospital has always enjoyed an excellent relationship with all the news media," said Sister Rita Rose. "It is our hope that a central desk for news coverage will afford an even better working arrangement between the hospital and the news media."

Association of Hospital Boards Meets For Sixth Session

The Mississippi Association of Hospital Governing Boards held its sixth annual assembly on June 25 in Biloxi in conjunction with the 31st annual convention of the Mississippi Hospital Association which was held June 25-27.

Dr. A. V. Beacham, president, presided over the MAHGB meeting. Dr. Beacham is administra-

tor of the Beacham Memorial Hospital in Magnolia.

Dr. Howard A. Nelson of Greenwood, MSMA past president, gave the keynote address. This was followed by a talk on "Federal Legislative Action in the Health Field" by Frank S. Groner, administrator, Baptist Memorial Hospital, Memphis, a past president of the American Hospital Association.

Other prominent speakers were Foster L. Fowler of Jackson, executive director of the Mississippi Commission on Hospital Care, and S. B. Wise, secretary and treasurer, MAHGB, and a member of the Board of Trustees, Coahoma County Hospital in Clarksdale.

An outstanding feature of the assembly was an address by the Honorable Paul B. Johnson, Lieutenant Governor, State of Mississippi.

ACOG Releases Names Of New Fellows

The American College of Obstetricians and Gynecologists has released the names of 485 new Fellows inducted into the College.

This brings the College's roster to a total of more than 7,500 including Life, Associate, and Junior Fellows. Among them are obstetric and gynecologic specialists from all sections of the United States and Canada.

New Fellows from Mississippi are Drs. Richard S. Hollis of Amory; Joseph Edward Wesp of Biloxi; Lois M. Mosey of Jackson, and Max Golden of Laurel.

To become a Fellow of ACOG a physician must have completed an approved program of medical training, limited his practice completely to obstetrics and gynecology for at least five years, and have the unqualified professional approval of his colleagues.

NEW MEMBERS

The following physicians have been elected to membership by their respective component medical societies in the Mississippi State Medical Association and the American Medical Association:

JENNINGS, ROBERT ERSKINE, Taylorsville. Born Cotton Plant, Miss., April 21, 1934; M.D., University of Mississippi School of Medicine, Jackson, 1958; interned U. S. Public Health Service Hospital, New Orleans, La., one year; U. S. Public Health Service, two years; elected June 14, 1962, by South Mississippi Medical Society.

MURPHY, JOHN WILLARD, Kosciusko. Born Dorsey, Miss., July 21, 1924; M.D., University of Mississippi School of Medicine, Jackson, 1960; interned U. S. Public Health Service Hospital, New Orleans, La., one year; U. S. Army, one year; U. S. Public Health Service, three years; elected March 14, 1962, by North Central District Medical Society.

RODDA, THADDEUS SALTER, Clarksdale. Born Los Angeles, Calif., Jan. 23, 1927; M.D., University of Tennessee College of Medicine, Memphis, 1949; interned Baptist Memorial Hospital, Memphis, Tenn., one year; member of the American Medical Association, a Diplomate of the American Board of Pathology; elected Nov. 8, 1961, by Clarksdale and Six Counties Medical Society.

WHITES, DAYTON ENTREKIN, Lucedale. Born in Winston County, Miss., June 4, 1935; M.D., University of Mississippi School of Medicine, Jackson, 1960; interned Greenville General Hospital, S. C., one year; elected June 14, 1962, by South Mississippi Medical Society.

DEATHS

BROWN, LEONIDAS SUTTON, Water Valley. M.D., University of Louisville School of Medicine, Ky., 1908; interned Louisville General Hospital, Ky., one year; died June 28, 1962, aged 78.

PRICE, BENJAMIN JOSEPH, Meridian. M.D., Vanderbilt University School of Medicine, Nashville, Tenn., 1940; member of the American Medical Association, the Trudeau Society, and the Mississippi Society of Internal Medicine; president of the Mississippi Society of Internal Medicine in 1957; secretary of the East Mississippi Medical Society 1957-1958 and president of the East Mississippi Medical Society in 1960; died June 9, 1962, aged 46.

WELCH, GEORGE BOYD, DeKalb. M.D., Louisiana State University School of Medicine, New Orleans, 1953; interned Southern Baptist Hospital, New Orleans, La., one year; Captain, U. S. Air Force, two years; died July 1, 1962, aged 33.

State Morbidity Reported Through June 22

The Mississippi State Board of Health reports the following occurrence of morbidity for 1962 through the 25th week of the year, ending June 22, 1962. Case totals reported are shown opposite the disease condition.

Tuberculosis, pul.	328
Tuberculosis, O. F.	24
Brucellosis	1
Dysentery	
Amebic	18
Bacillary	13
Food poisoning, NOS	3
Septicemia, Strep.	4
Septicemia, Staph.	37
Leptospirosis	2
Toxoplasmosis	1
Staphylococcus infection	7
Diphtheria	5
Meningococcus infection	
Meningitis	9
Meningococcemia	1
Meningitis, O. F.	29
Other complications of smallpox vaccination	2
Tularemia	2
Tetanus	6
Encephalitis, infectious	11
Mononucleosis, infectious	37
Diarrhea of newborn	2
Hepatitis, infectious	507
Helminthic infections	
Hookworm	408
Ascariasis	183
Strongyloides	23
Other Cestode Infest. (HN)	1
Histoplasmosis	3
Other fungus infections	1
Streptococcus infections	
Scarlet fever	142
Strep throat	2,022
Malaria	1
Rheumatic fever	2
Pertussis	13
Measles	2,552
Chickenpox	705
Mumps	279
Influenza	11,183
Gonorrhea	2,380
Syphilis	
Early	69
Late	165

ICS Sets International Meet at New York

New York will be the site of the XIII Biennial International Congress of the International College of Surgeons when the multi-national group convenes Sept. 9-13 at the Waldorf-Astoria. This was the announcement of Dr. W. F. James, executive director.

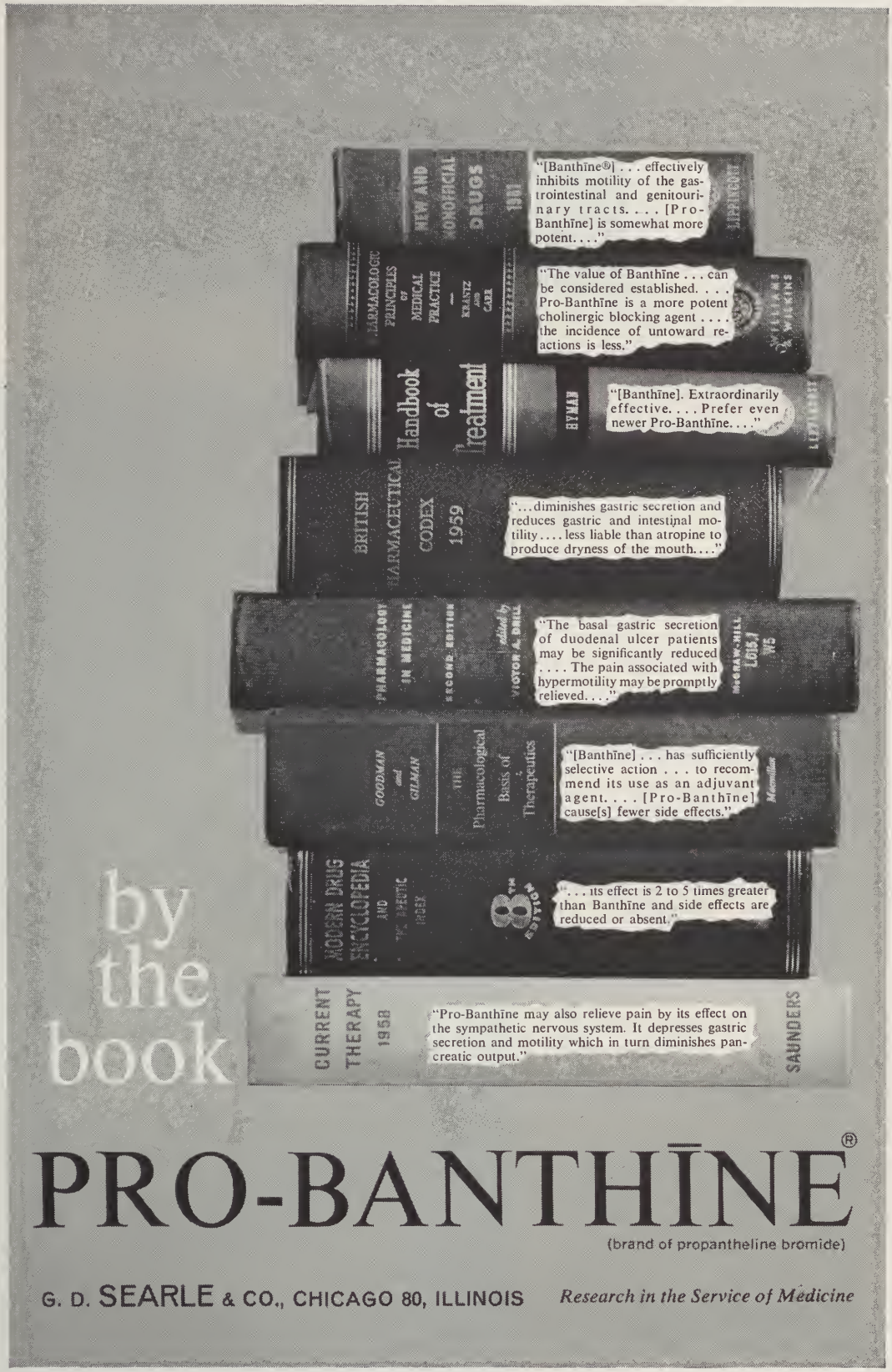
The congress will be comprised of a general assembly and 12 surgical specialty groups. Additionally, a segment of the program will be devoted to surgical nurses. More than 20 essayists are scheduled to appear before the general assembly in individual presentations and six panel discussions.

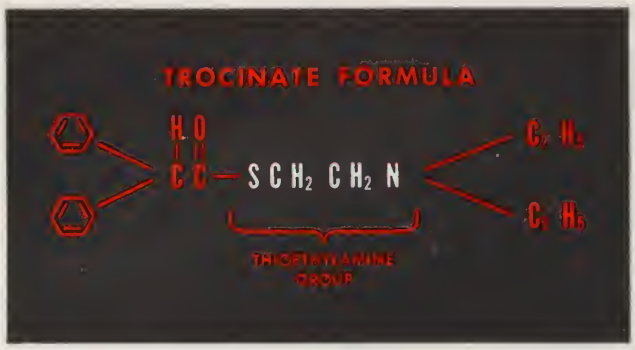
Dr. Lawrence W. Long, Jackson, ISC regent for Mississippi, will preside over the general surgical section on Sept. 10. Prior to the congress, he will participate in examining candidates for fellowship during oral examinations on Sept. 8.

President of the international body is Prof. Dr. A. Mario Dogliotti, Torino, Italy. Other officers are Dr. Lyon H. Appleby, Vancouver, B.C., president-elect; Dr. Horace E. Turner, Chicago, secretary general; and Dr. James, executive director. Applications for registration should be mailed to the college at 1516 North Lake Shore Drive, Chicago 10, Ill.

REFERENCES

1. Johnson, Thomas A.: Colonic Diverticula, in Bockus, H. L.: Gastro-Enterology, Philadelphia, W. B. Saunders Company, 1944, vol. 2, chap. 65, pp. 674-710.
2. Goulard, A., and Hampton, A. O.: Correlation of the the Clinical, Pathological, and Roentgenological Findings in Diverticulitis, Am. J. Roentgenol. 72:213-221, 1954.
3. Henderson, N. P.: Diverticulitis and Diverticulosis, Brit. J. Radiol. 17:197-203, 1944.
4. Robbins, S. L.: Textbook of Pathology with Clinical Applications, Philadelphia, W. B. Saunders Company, 1957, p. 783.


"[Banthīne®] . . . effectively inhibits motility of the gastrointestinal and genitourinary tracts. . . . [Pro-Banthīne] is somewhat more potent. . . ."
NEW AND NONOFFICIAL DRUGS 1961
"The value of Banthīne . . . can be considered established. . . . Pro-Banthīne is a more potent cholinergic blocking agent . . . . the incidence of untoward reactions is less."
PHARMACOLOGIC PRINCIPLES of MEDICAL PRACTICE
"[Banthīne]. Extraordinarily effective. . . . Prefer even newer Pro-Banthīne. . . ."
Handbook of Treatment
"...diminishes gastric secretion and reduces gastric and intestinal motility . . . . less liable than atropine to produce dryness of the mouth. . . ."
BRITISH PHARMACEUTICAL CODEX 1959
"The basal gastric secretion of duodenal ulcer patients may be significantly reduced . . . . The pain associated with hypermotility may be promptly relieved. . . ."
PHARMACOLOGY IN MEDICINE
"[Banthīne] . . . has sufficiently selective action . . . to recommend its use as an adjuvant agent. . . . [Pro-Banthīne] cause[s] fewer side effects."
GOODMAN and GILMAN
The Pharmacological Basis of Therapeutics
". . . its effect is 2 to 5 times greater than Banthīne and side effects are reduced or absent."
MODERN DRUG ENCYCLOPEDIA AND THERAPEUTIC INDEX
8TH EDITION
"Pro-Banthīne may also relieve pain by its effect on the sympathetic nervous system. It depresses gastric secretion and motility which in turn diminishes pancreatic output."
CURRENT THERAPY 1958
SAUNDERS
by the book
PRO-BANTHĪNE®
(brand of propantheline bromide)
G. D. SEARLE & CO., CHICAGO 80, ILLINOIS
Research in the Service of Medicine



Trocinate®

Brand of Thiphenamil HCl.

A MUSCULOTROPIC ANTISPASMODIC WITH NO APPRECIABLE ANTICHOLINERGIC ACTION

Trocinate relieves spasms of the lower bowel and the genito-urinary tract by direct action on the contractile mechanism of smooth muscles. The absence of any appreciable action on the autonomic nervous system eliminates the usual side-effects. It may be safely used in glaucoma.

USUAL DOSAGE: 2 Tablets, 4 times a day. Maintenance dosage is frequently lower.

Available in PINK sugar-coated tablets, 100 mgs. and in GREEN sugar-coated tablets of 100 mgs. with 16 mgs. of phenobarbital.



Dispensed in bottles of 40 and 250 tablets.

WM. P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA

Manufacturers of ethical pharmaceuticals since 1856

If you have patients on a cholesterol depressant diet, this will be welcome news:

General Mills is now making available, through grocery stores, a Safflower Oil which is totally acceptable in the diet, and which is priced reasonably.

SAFF·O·LIFE
Safflower Oil



As you know, Safflower Oil is higher in poly-unsaturates and lower in saturated fats than any other type of readily available vegetable oil.

When an increased poly-unsaturated fatty acid intake is desirable, you can recommend Saff-o-life Safflower Oil. You can do so with the assurance that the patient will find it completely appetizing—clear, light and fresh-smelling—and priced at a level which poses no problem.

Ratio of Linoleates* to Saturates
*(Poly-Unsaturates)

SAFFLOWER OIL • 9.0 to 1.0
CORN OIL • 5.3 to 1.0
SOYBEAN OIL • 3.5 to 1.0
COTTONSEED OIL • 2.0 to 1.0
PEANUT OIL • 1.6 to 1.0

Physicians who wish recipes using Saff-o-life Safflower Oil are invited to write directly to General Mills, Inc. Address your inquiries to Professional Services Director, General Mills, Inc. Dept. 120, 9200 Wayzata Blvd., Minneapolis 26, Minnesota.

Control Constipation Without Interference

PRULET®



A MILD REFLEX ACTING LAXATIVE . . .

does not interfere with other conditions under treatment.

The active ingredient of Prulet,® Bis(p-acetoxyphenyl) -oxindole, is analogous to a substance found in prunes. Completely recoverable from the feces, it has no deleterious effect on the vital organs. It is completely free from side effects, such as coloring of the urine, hyperemia and flatulence. During lactation no portion of the active ingredient of Prulet® appears in the milk and it has no effect on the nursing infant.

PRULET®...

provides therapeutic effectiveness with milligram dosage.

EASY TO TAKE: Prulet® tablets are small, odorless, and tasteless.

SUPPLIED: Bottles of 60.

EACH TABLET CONTAINS:
Bis (p-acetoxyphenyl)-oxindole . . . 5 mg

DOSAGE: One or two tablets before retiring until regularity is achieved or as directed by a physician.

PRECAUTIONS: Presence of nausea, vomiting, abdominal pains, or other symptoms of appendicitis.

COMPLETE LITERATURE AND SAMPLES UPON REQUEST

Mission Pharmacal Co.
SAN ANTONIO 6, TEXAS

PR-61

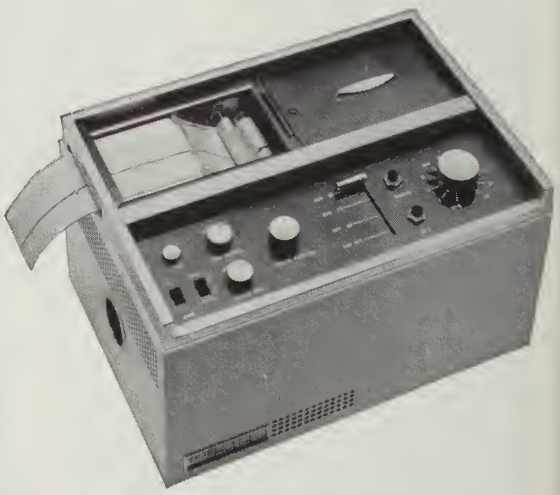
ACOG Holds Regional Meeting At Little Rock Sept. 21-22

The annual meeting of District VII of the American College of Obstetricians and Gynecologists will be held at the Hotel Marion in Little Rock, Ark., on Friday and Saturday, Sept. 21-22, 1962.

Banquet speaker for the meeting will be the Honorable Wilbur Mills, chairman of the House Ways and Means Committee. Program chairman is Dr. Dan W. Beacham of New Orleans, La. Local arrangements chairman for the meeting is Dr. John B. Nettles of Little Rock. The meeting is open to all physicians interested in the practice of obstetrics and gynecology. Further information may be obtained from Dr. Beacham, 4240 Magnolia St. at General Pershing, New Orleans, La.

Among the Section Officers for District VII are Dr. Ross F. Bass of Jackson, chairman from Mississippi, and Michael Newton of Jackson, vice chairman.

Burdick



Has the diagnostic equipment in your office kept pace with your own knowledge of new drugs, medicines and technics?

Write us for full details on the Burdick EK-III Dual-Speed Electrocardiograph.

KAY SURGICAL INC.
663 North State St. • Jackson, Miss.



Emotional control regained...a family restored... thanks to a doctor and 'Thorazine'

During the past seven years, 'Thorazine' has become the treatment of choice for moderate to severe mental and emotional disturbances because it is:

- specific enough to relieve underlying fear and apprehension
- profound enough to control hyperactivity and excitement
- flexible enough so that in severe cases dosage may be raised to two or three times the recommended starting level

Experience in over 14,000,000 Americans confirms the fact that, in most patients, the potential benefits of 'Thorazine' far outweigh its possible undesirable effects.

Smith Kline & French Laboratories SK&F

Thorazine®

brand of chlorpromazine

A fundamental drug
in both office and hospital practice

Posed by professional models.

For prescribing information, please see PDR or SK&F literature.



Out-Patient Clinic and Offices

HILL CREST SANITARIUM

Established in 1925

FOR NERVOUS AND MENTAL DISEASES
AND ADDICTION PROBLEMS

James A. Becton, M.D.
P. O. Box 2896, Woodlawn Station, Birmingham 6, Ala.

James Keen Ward, M.D.
Phone 595-1151 and 595-1152

APPALACHIAN HALL

ESTABLISHED — 1916

ASHEVILLE NORTH CAROLINA



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.

Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.

Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

Wm. Ray Griffin, Jr., M.D.
Robert A. Griffin, M.D.

Mark A. Griffin, Sr., M.D.
Mark A. Griffin, Jr., M.D.

For rates and further information, write: APPALACHIAN HALL, ASHEVILLE, N. C.



Put your low-back patient back on the payroll

Soma relieves stiffness —stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, *fast!*

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

This was demonstrated by Kestler in a controlled study: average time for full recovery was 11.5 days with Soma, 41 days without Soma. (J.A.M.A. **172**:2039, April 30, 1960.)

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. USUAL DOSAGE: 1 TABLET Q.I.D.

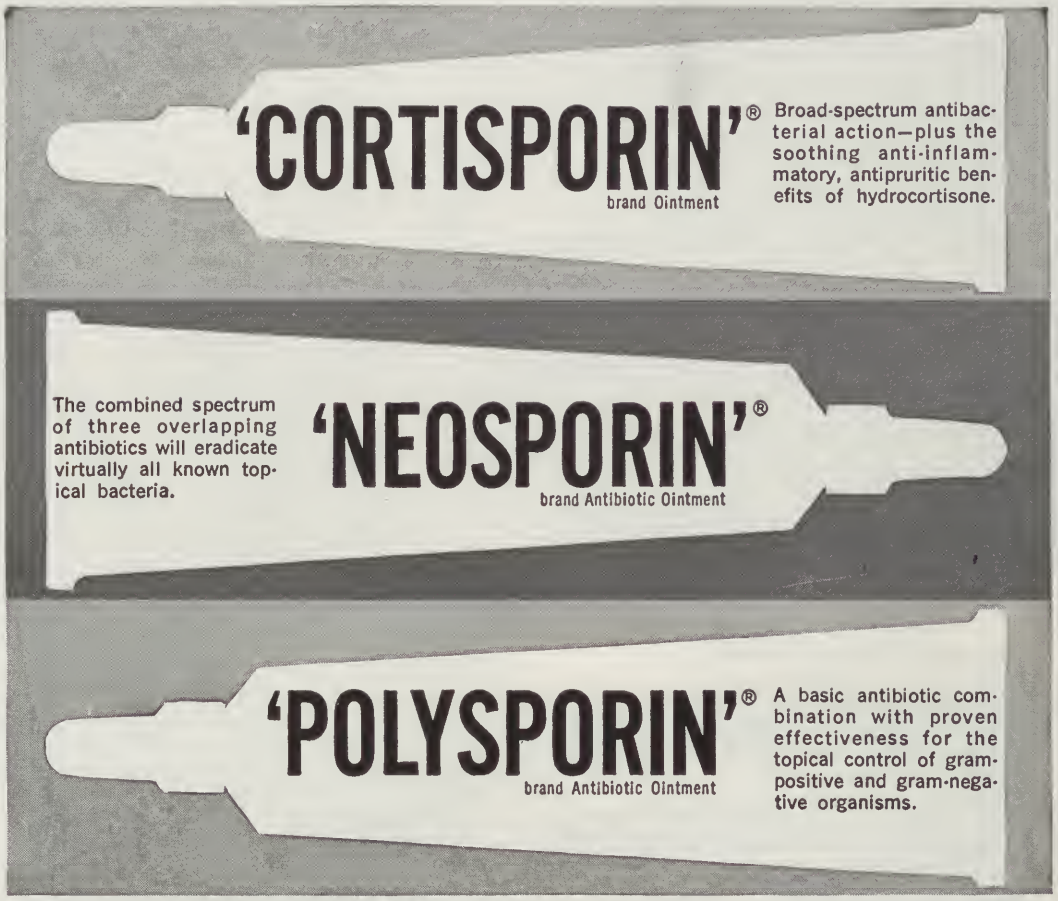
The muscle relaxant with an independent pain-relieving action

SOMA®

(carisoprodol, Wallace)

Wallace Laboratories, Cranbury, New Jersey

'B. W. & Co.' 'Sporin' Ointments rarely sensitize . . . give decisive bactericidal action for most every topical indication



Contents per Gm.	'Polysporin'®	'Neosporin'®	'Cortisporin'®
'Aerosporin'® brand Polymyxin B Sulfate	10,000 Units	5,000 Units	5,000 Units
Zinc Bacitracin	500 Units	400 Units	400 Units
Neomycin Sulfate	—	5 mg.	5 mg.
Hydrocortisone	—	—	10 mg.
Supplied:	Tubes of 1 oz., ½ oz. and ⅛ oz. (with ophthalmic tip)	Tubes of 1 oz., ½ oz. and ⅛ oz. (with ophthalmic tip)	Tubes of ½ oz. and ⅛ oz. (with ophthalmic tip)

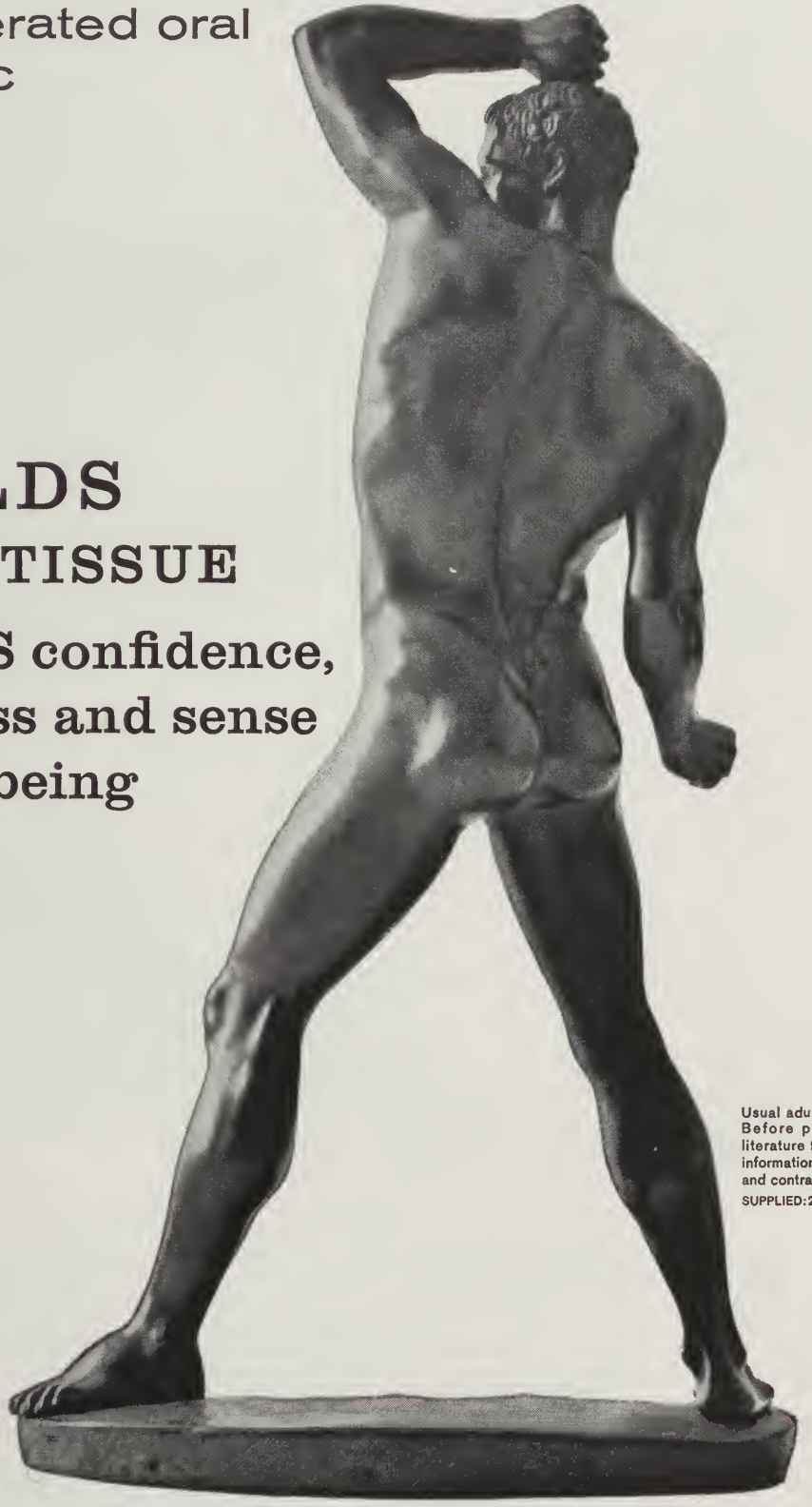
BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York

THE SIGNIFICANT NEW PHYSIOTONIC

WINSTROL®

BRAND OF STANOZOLOL

well tolerated oral anabolic



BUILDS
BODY TISSUE

BUILDS confidence, alertness and sense of well-being

Usual adult dose: 1 tablet t.i.d. Before prescribing, consult literature for additional dosage information, possible side effects and contraindications.

SUPPLIED: 2 mg. tablets. Bottles of 100.

Winthrop
LABORATORIES
New York 18, N.Y.

With WINSTROL, patients look better...feel stronger—because they are stronger

convenient
Fast-acting NaClex spares your patient the inconvenience of long, drawn-out diuresis. Taken in the morning, or by early afternoon, it completes desired water loss before bedtime.

persevering
Although fluid excretion returns to nearly normal 12 hours after one NaClex tablet, the excretion of sodium and chloride ions continues above control values for 24 hours or more.

reassuring
Prompt fluid and weight losses with NaClex encourage your patients, promote confidence and cooperation. NaClex often allows a more liberal dietary salt intake for selected patients.

versatile
Also an effective antihypertensive agent, NaClex can be used alone in mild hypertension or used to potentiate other hypotensive drugs. Since patients seldom develop a tolerance to NaClex, it can often be used with continuing efficacy in the long-term ancillary treatment of congestive heart failure, hypertension, or obesity.

Each NaClex tablet contains benzthiazide, 50 mg.

*R. V. Ford: Cur. Ther. Research, 2:51, 1960.

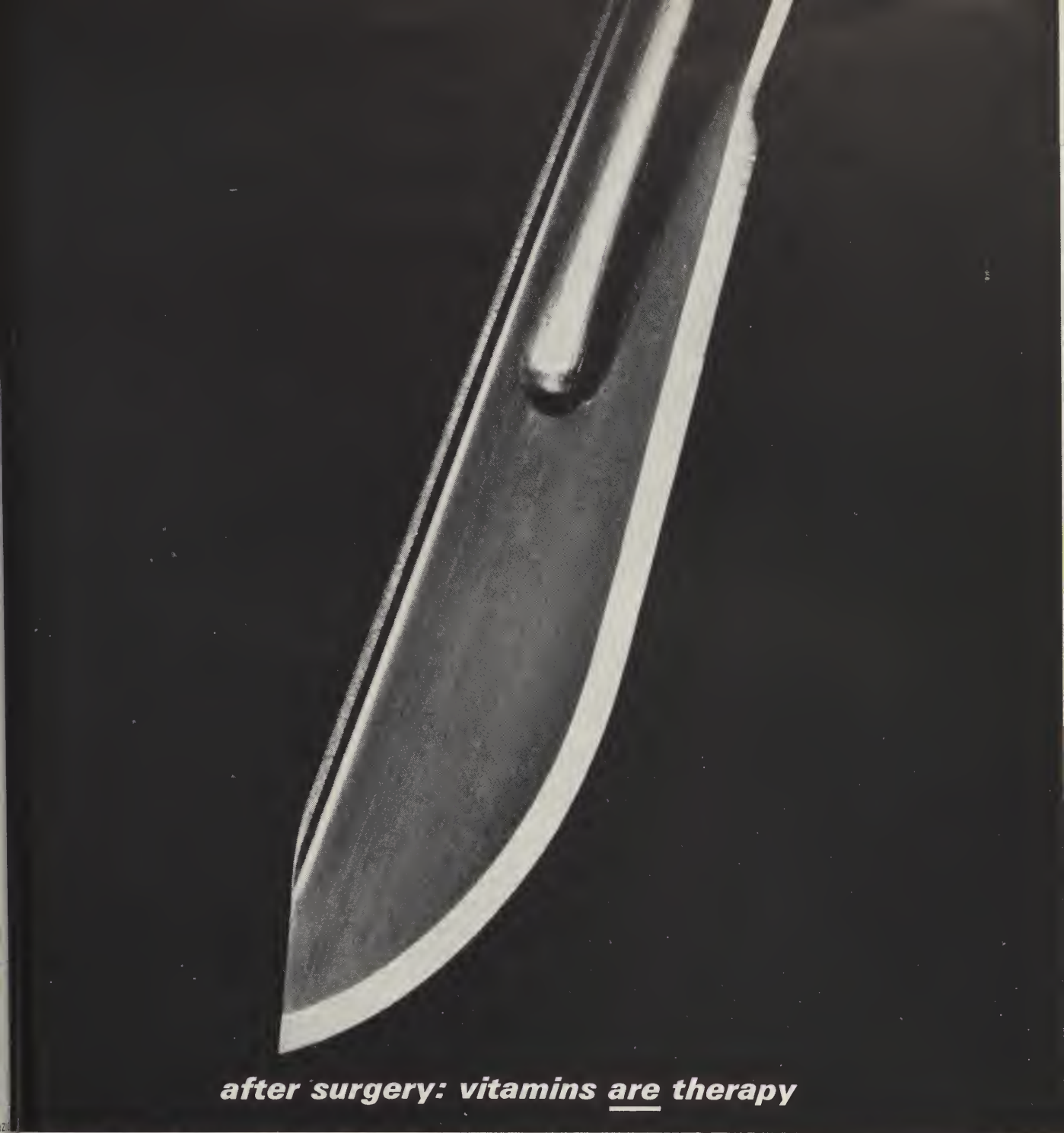
A. H. Robins Co., Inc.
Richmond, Virginia

completes 82% of its diuretic effect in just 6 hours-96% in 12!*

NaClex® works fast!

benzthiazid
Robins

Available in Canada as Exna®



after surgery: vitamins are therapy

utritional supplementation is basic to postoperative care. herapeutic allowances of B and C vitamins help meet ncreased metabolic requirements and compensate for tress depletion. STRESSCAPS can set the patient on a nore favorable course and contribute to full recovery. ackaged in decorative "reminder" jars of 30 and 100.

Each capsule contains:	
Vitamin B_1 (Thiamine Mononitrate)	10 mg.
Vitamin B_2 (Riboflavin)	10 mg.
Niacinamide	100 mg.
Vitamin C (Ascorbic Acid)	300 mg.
Vitamin B_6 (Pyridoxine HCl)	2 mg.
Vitamin B_{12} Crystalline	4 mcgm.
Calcium Pantothenate	20 mg.

Recommended intake: Adults, 1 capsule daily, or as directed by physician, for the treatment of vitamin deficiencies.

EDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y. Lederle

STRESSCAPS®

Stress Formula Vitamins Lederle

ENDOCRINE AND PHARMACEUTICAL PRODUCTS OF QUALITY

Organon

An important announcement to physicians who prescribe corticosteroids

Organon's new technical process now makes one of the newer, most highly potent and well tolerated corticosteroids available at greatly reduced cost to your patients with allergic, arthritic or other inflammatory conditions.

This new product is being marketed under the trade name of HEXADROL, brand of dexamethasone 'Organon'. HEXADROL is now being offered to your pharmacist at a price which should make it available to your patients at a cost well within the price range of older generically prescribed corticosteroids. It is supplied as 0.75 mg. white scored tablets, in bottles of 100.

If you have been prescribing the older corticosteroids— such as prednisone, prednisolone, hydrocortisone or cortisone, and have hesitated to prescribe the newer corticosteroids because of economic consideration for your patients, you can now secure all of the clinical advantages of dexamethasone at approximately the same prescription expense. Mg. for mg., HEXADROL is approximately 6 times more potent than triamcinolone or methylprednisolone... 8 times more potent than prednisone or prednisolone... 28 times more potent than hydrocortisone... and 35 times more potent than cortisone.

If you are now prescribing the newer corticosteroids— such as triamcinolone, betamethasone, paramethasone or another brand of dexamethasone, because of reduced risk of sodium and fluid retention, potassium depletion, or disturbance of glucose metabolism—you can obtain all of these benefits with HEXADROL, at marked savings—yet with complete assurance of unsurpassed quality and therapeutic effect.

For complete information concerning HEXADROL— including indications, dosage, precautions and side effects—or if you would like a trial supply, ask your Organon Representative, or write to: Director, Professional Services, Organon Inc., West Orange, N. J.

'Organon'—your professional assurance of quality
Hexadrol®—your patient's assurance of economy!

INDEX TO ADVERTISERS

In accepting advertising for publication, the JOURNAL has exercised reasonable precaution to insure that only reputable, factual advertisements are included. Nevertheless, claims made by advertisers in behalf of goods, services, and medicinal preparations, apparatus or physical appliances are understood to be those of the advertiser. Neither sanction nor endorsement of such is warranted, stated, or implied by the association.

	Adv. page
Ames Company	37
Appalachian Hall	28
Blue Cross	15
Burroughs Wellcome	14, 30
First Federal of Jackson	9
General Mills	25
Hillcrest Sanitarium	28
Kay Surgical	26
Lederle Laboratories	12, 33
Eli Lilly	front cover, 22
P. Lorillard	13
Mission Pharmacal Company	26
Organon, Inc.	34
Parke, Davis and Company	2, 3
William P. Poythress	24
A. H. Robins	6, 32
Roche Laboratories	back cover
Sardeau	8
W. B. Saunders	7
Schering Corporation	21
G. D. Searle	23
Smith, Kline and French	27
E. R. Squibb	10, 36
U. S. Brewers	11
U. S. Vitamin	18, 19
Upjohn Company	16
Wallace Laboratories	17, 29
Winthrop Laboratories	4, 20, 31

Articles for Publication

Manuscripts should be typewritten, double spaced on one side of the paper. Tables, charts, and tabulations should be submitted on separate sheets but their position in the text should be indicated. Authors are encouraged to limit bibliographies to 10 references, written in conformation to style utilized in scientific publications of the American Medical Association. Articles are accepted for publication on the condition that they have not been previously published and are contributed solely to this JOURNAL.

A thesis summary of 75 to 100 words must accompany each manuscript separately from the text. Figures and drawings are acceptable when prepared with black ink on white paper. Photographs for illustrations should be unmounted, untrimmed, glossy prints and all such material must be identified. No charges are made to authors for illustration engravings not exceeding four column inches per printed page.

Reprints may be obtained at cost from the association. The right is reserved to decline any manuscript for publication. Ordinarily, manuscripts submitted will be acknowledged whether published or not.

Boston to Host Occupational Health Congress

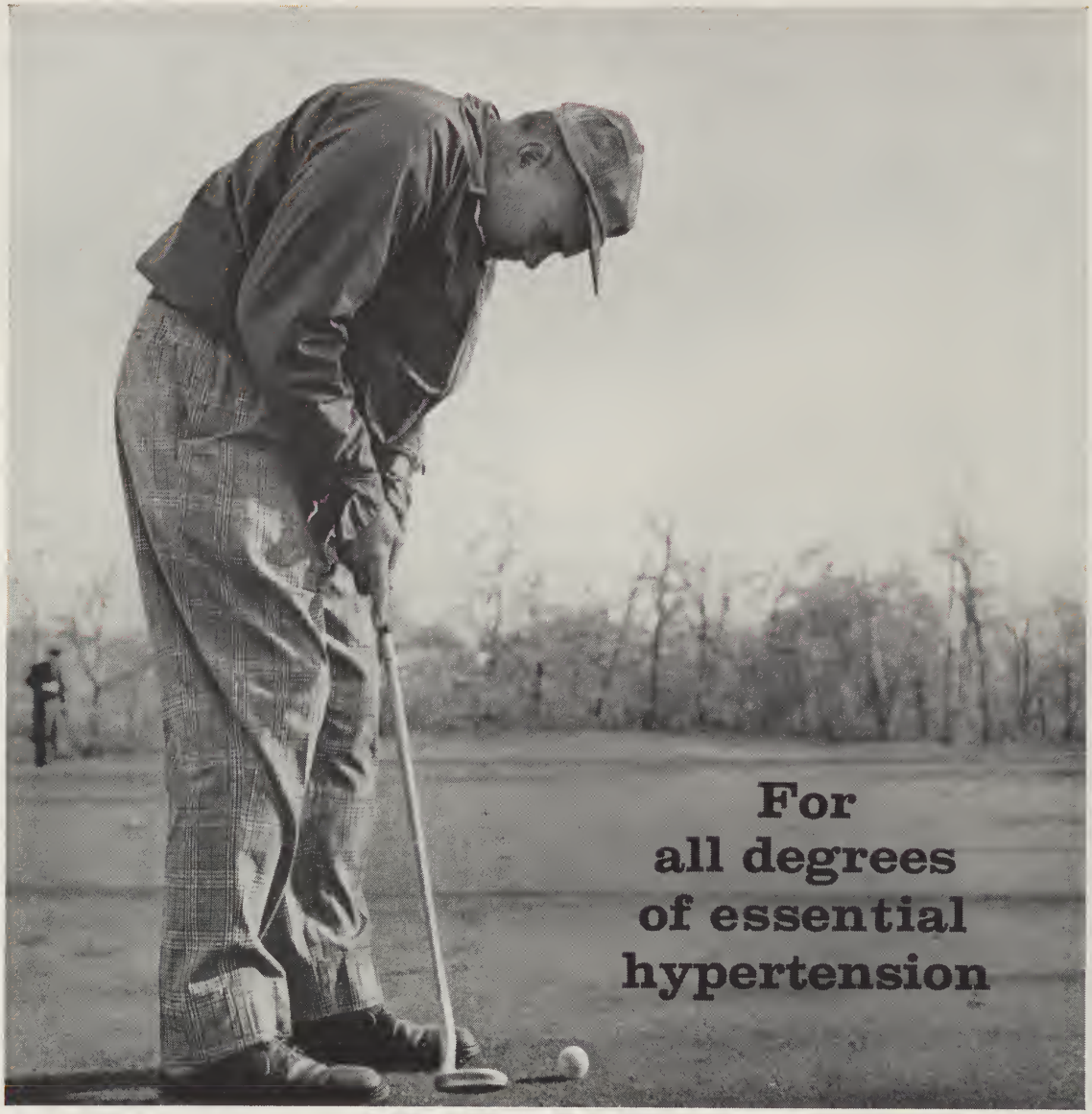
Physicians and industrial health experts from all sections of the nation will gather in Boston Oct. 2-3 for the 22nd Congress on Occupational Health.

The two-day meeting at the Somerset Hotel is sponsored by the American Medical Association's Council on Occupational Health.

The national congress serves as a meeting for the formal presentation of scientific papers on occupational health as well as a forum in which occupational health problems can receive the attention of acknowledged experts in this field.

Subjects to be discussed in scientific presentations include History and Problems of Occupational Health in New England, Small Plant Occupational Health Programs, Confidentiality of Occupational Health Records, Human Factors in Accidents, Mental and Emotional Problems in the Worker and Occupational Health and Workmen's Compensation Problems Posed by Handicapped Workers.

Additional information about the conference may be obtained by writing to the Council on Occupational Health, American Medical Association, 535 North Dearborn, Chicago 10, Ill.



"relief of symptoms is striking with Rautrax-N"†

Rautrax-N decreases blood pressure for almost all patients with mild, moderate or severe essential hypertension. Rautrax-N also offers a new sense of relaxation and well-being in hypertension complicated by anxiety and tension. And in essential hypertension with edema and/or congestive heart failure, Rautrax-N achieves diuresis of sodium and chloride with minimal effects on potassium and other electrolytes.

Rautrax-N combines Raudixin (antihypertensive-tranquilizer) with Naturetin c̄ K (antihypertensive-diuretic) for greater antihypertensive effect and greater effectiveness in relief of hypertensive symptoms than produced by either component alone. Rautrax-N is also flexible (may be prescribed in place of Raudixin or Naturetin c̄ K) and economical (only 1 or 2 tablets for maintenance in most patients).

Supply: Rautrax-N — capsule-shaped tablets providing 50 mg. Raudixin, 4 mg. Naturetin and 400 mg. potassium chloride. *Rautrax-N Modified* — capsule-shaped tablets providing 50 mg. Raudixin, 2 mg. Naturetin and 400 mg. potassium chloride.

†Hutchison J. C.: Current Therap. Res. *2*:487 (Oct.) 1960.

For full information, see your Squibb Product Reference or Product Brief.

Rautrax-N*

Squibb Standardized Rauwolfia Serpentina Whole Root (Raudixin) and Bendroflumethiazide (*Naturetin) with Potassium Chloride

SQUIBB *Squibb Quality — the Priceless Ingredient*

SQUIBB DIVISION Olin

'RAUDIXIN'®, 'RAUTRAX'®, AND 'NATURETIN'® ARE SQUIBB TRADEMARKS.

NEW!

DECHOLIN-BB®

COUNTERACTS 3 COMMON CAUSES in functional G.I. disturbances related to hepatobiliary dysfunction

TENSION	SPASM	STASIS
butabarbital sodium (Warning: may be habit-forming) 15 mg. (¼ gr.)	belladonna extract 10 mg. (⅙ gr.)	dehydrocholic acid, AMES 250 mg. (3¾ gr.)

Available: Bottles of 100 tablets.

for **spasm** and **stasis**

DECHOLIN® WITH BELLADONNA

belladonna extract, 10 mg. (⅙ gr.)
dehydrocholic acid, AMES, 250 mg. (3¾ gr.)

for **stasis** alone

DECHOLIN®

dehydrocholic acid, AMES, 250 mg. (3¾ gr.)

Available: Bottles of 100 and 500 tablets.

Average Adult Dose—DECHOLIN-BB, DECHOLIN with Belladonna, and DECHOLIN—1 or, if necessary, 2 tablets three times daily.
Contraindications: Biliary tract obstruction, acute hepatitis, and (DECHOLIN with Belladonna and DECHOLIN-BB) glaucoma or prostatic hypertrophy. 19562

AMES
COMPANY, INC
Elkhart • Indiana
Toronto • Canada

ANXIETY TENSION & THE LIBRIUM EFFECT

LIBRARIAN
NAT LIBRARY OF MED
WASHINGTON 25 D C

A patient treated with Librium feels different, even after a few doses. He appears different to his family and to his physician. Different, in the sense of a change from the previous state of anxiety and tension, and also freed from the sensations created by daytime sedatives or tranquilizers. That the striking difference in Librium was first observed in a series of ingenious animal experiments is mainly of theoretical interest. Of more practical importance, for example, is that Librium lacks any depressant effect—a fact which can assume overriding clinical importance. And this is but one of the ways in which the difference can be observed.

Librium deserves to be studied at first hand. Why not select twelve of your patients who show the emotional or somatic signs of anxiety, tension, or agitation, place six of them on Librium—and see the difference in effect for yourself.

THE SUCCESSO
THE TRANQUILI

Consult literature and dosage in available on request, before p

LIBRIUM® Hydrochloride—7-chloro-2-methyl phenyl-3H-1,4-benzodiazepine 4-oxide hydro

ROCHE
ROCHE LABORATORIES
Division of Hoffmann-La Roche Inc
Nutley 10, New Jersey

HB 6

JOURNAL OF THE Mississippi STATE MEDICAL ASSOCIATION

SEPTEMBER 1962

INDEX MEDICUS



. . . even though surrounded by allergens. Co-Pyronil® provides smooth, continuous control of allergic symptoms—relief in minutes for hours, with virtually no side-effects. And there is a dosage form for every allergic patient.

Pulvules®
Suspension
Pediatric Pulvules

Co-Pyronil®
(pyrrobutamine compound, Lilly)

Each Pulvule contains Pyronil® (pyrrobutamine, Lilly), 15 mg.; Histadyl® (methapyrilene hydrochloride, Lilly), 25 mg.; and Clopane® Hydrochloride (cyclopentamine hydrochloride, Lilly), 12.5 mg. Each pediatric Pulvule or 5-cc. teaspoonful of the suspension contains half of the above quantities. This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana.

Lilly

258015

NATIONAL LIBRARY OF MEDICINE

Space Medicine Issue . . . How Bioastronautics Looks at the Moon, Medical Problems of Space Flight, Radio Telemetry Techniques

M.S.M.A

"Alone I walk the peopled city..."



DILANTIN®

(diphenylhydantoin, Parke-Davis)

helps the epileptic to lead a more fruitful life

"In a series of over 3,000 epileptics... DILANTIN alone or in combination with other drugs has been the sheet anchor in the management."[1] DILANTIN is the established anticonvulsant medication for a variety of reasons: • effective control of grand mal and psychomotor seizures[1-9] • oversedation is not a problem[2] • possesses a wide margin of safety[3] • low in incidence of side effects[3] • its use is often accompanied by improved memory, intellectual performance, and emotional stability.[10] DILANTIN (diphenylhydantoin, Parke-Davis) is available in several forms, including DILANTIN Sodium Kapseals,® 0.03 Gm. and 0.1 Gm., bottles of 100 and 1,000. Other members of the PARKE-DAVIS FAMILY OF ANTICONVULSANTS for grand mal and psychomotor seizures: PHELANTIN® Kapseals (Dilantin 100 mg., phenobarbital 30 mg., desoxyephedrine hydrochloride 2.5 mg.), bottles of 100. for the petit mal triad: MILONTIN® Kapseals (phensuximide, Parke-Davis) 0.5 Gm., bottles of 100 and 1,000, and Suspension, 250 mg. per 4 cc., 16-ounce bottles. CELONTIN® Kapseals (methsuximide, Parke-Davis) 0.3 Gm., bottles of 100. ZARONTIN® Capsules (ethosuximide, Parke-Davis) 0.25 Gm., bottles of 100.

REFERENCES: (1) Roseman, E.: *Neurology* **11**:912, 1961. (2) Bray, P. F.: *Pediatrics* **23**:151, 1959. (3) Chao, D. H.; Druckman, R., & Kellaway, P.: Convulsive Disorders of Children, Philadelphia, W. B. Saunders Company, 1958, p. 120. (4) Crawley, J. W.: *M. Clin. North America* **42**:317, 1958. (5) Livingston, S.: The Diagnosis and Treatment of Convulsive Disorders in Children, Springfield, Ill., Charles C Thomas, 1954, p. 190. (6) *Ibid.*: *Postgrad. Med.* **20**:584, 1956. (7) Merritt, H. H.: *Brit. M. J.* **1**:666, 1958. (8) Carter, C. H.: *Arch. Neurol. & Psychiat.* **79**:136, 1958. (9) Thomas, M. H., in Green, J. R., & Steelman, H. F.: Epileptic Seizures, Baltimore, The Williams & Wilkins Company, 1956, pp. 37-48. (10) Goodman, L. S., & Gilman, A.: The Pharmacological Basis of Therapeutics, ed. 2, New York, The Macmillan Company, 1955, p. 187.

This advertisement is not intended to provide complete information for use. Please refer to the package enclosure, medical brochure, or write for detailed information on indications, dosage, and precautions.

PARKE-DAVIS

PARKE, DAVIS & COMPANY, Detroit 32, Michigan

93362





NTZ Nasal Spray gives prompt, dependable decongestion of the nasal membranes for fast symptomatic relief of hay fever. The first spray shrinks the turbinates, restores nasal ventilation and stops mouth breathing. The second spray, a few minutes later, improves sinus ventilation and drainage. Excessive rhinorrhea is reduced.

NTZ is more than a simple vasoconstrictor. It contains Neo-Synephrine® HCl 0.5%—the efficacy of which is unexcelled—to shrink nasal membranes and provide inner space; Thenfadil® HCl 0.1% for potent topical antiallergic action; and Zephiran® Cl 1:5000 (antibacterial wetting agent) to promote the spread of the decongestant components to less accessible nasal areas. NTZ is well tolerated and does not harm respiratory tissues.

NTZ Nasal Spray also provides decongestive relief for head colds, perennial rhinitis and sinusitis. Supplied in leakproof, pocket-size, squeeze bottles of 20 ml. and in bottles of 30 ml. with dropper.

helps hay fever patients forget the "season"

NTZ® **Nasal Spray**

Winthrop LABORATORIES New York 18, N.Y.

NTZ, Neo-Synephrine (brand of phenylephrine), Thenfadil (brand of thenyldiamine) and Zephiran chloride (brand of benzalkonium chloride, refined)

Volume III
Number 9
September 1962



JOURNAL of the Mississippi
STATE MEDICAL ASSOCIATION

• EDITOR
WILLIAM M. DABNEY, M.D.

• ASSOCIATE EDITORS
DEWITT HAMRICK, M.D.
GEORGE H. MARTIN, M.D.

• MANAGING EDITOR
ROWLAND B. KENNEDY

• EDITORIAL ASSISTANT
BETTY M. SADLER

• PUBLICATIONS COMMITTEE
LAWRENCE W. LONG, M.D.
Chairman
B. B. O'MARA, M.D.
WILLIAM E. LOTTERHOS, M.D.
and the Editors

• THE ASSOCIATION
C. P. CRENSHAW, M.D.
President
JOHN G. ARCHER, M.D.
President-elect
C. G. SUTHERLAND, M.D.
Secretary-Treasurer
B. B. O'MARA, M.D.
Speaker
HOWARD A. NELSON, M.D.
Vice Speaker
ROWLAND B. KENNEDY
Executive Secretary
CHARLES L. MATHEWS
Assistant Executive Secretary

The JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION is owned and published by the Mississippi State Medical Association, founded 1856. Editorial, executive, and business offices, 735 Riverside Drive, Jackson, Mississippi; office of publication, 1201-5 Bluff Street, Fulton, Missouri. Subscription rate, $5 per annum; $1 per copy, as available. Advertising rates furnished on request. Second-class postage paid at the post office at Fulton, Missouri.

CONTENTS

ORIGINAL PAPERS

The Fourth Environment **395** LAWRENCE W. LONG, M.D.
How Bioastronautics Looks at the Moon **397** HUBERTUS STRUGHOLD, M.D., Ph.D.
Medical Problems of Space Flight **404** JOHN P. STAPP, COLONEL, USAF (MC)
Use of Personalized Radio Telemetry Techniques for Physiological Monitoring in Aerospace Flight **413** DAVID G. SIMONS, LT. COLONEL, USAF (MC)
Space: A Shield for Peace **421** JOHN C. STENNIS, U.S.S.

SPECIAL ARTICLES

CPC XXXII **425** Mississippi Baptist Hospital
Radiologic Seminar V **432** ROBERT R. SURRATT, M.D.

EDITORIALS

For the Betterment of All: Medicine in the Space Age **435** From Astronaut to Patient
Insurance Is a Bargain If It Does the Job **436** 'In the Public Interest . . .'

THIS MONTH

The President Speaking **434** 'Granddaddy of Them All'
The Literature **437** Books and Journals
Medical Organization **439** An Interprofessional Code

Copyright 1962, Mississippi State Medical Association



new triad
excellent for over-all topical control of
ATHLETE'S FOOT
(Tinea pedis)

ANAFUNG

ANAFUNG
Antifungal
CREAM
1 oz. tubes



ANAFUNG
FOOT POWDER
2 oz. cans
shaker top



ANAFUNG
AEROSOL
FOOT POWDER
jet spray leaves
long-clinging
powder, 6 oz. cans



- direct penetrating multiple antifungal power, more effective than undecylenic acid against fungi in horny, hard-to-reach skin layers
- antibacterial action against secondary infection even against antibiotic-resistant staph. Antimonilial in vitro
- superb drying properties
- relief from itching
- infrequent sensitization or irritation
- pleasant to use

Anafung therapy provides the classic antifungal fatty acids, sodium undecylenate and sodium propionate; the modern bacteriostat; 3,4,4′-trichlorocarbanilide (TCC); drying salicylic acid, cooling menthol and camphor; talcum and zinc stearate in the powders only.

For **ANAFUNG SAMPLES** and literature, please write

DESITIN CHEMICAL CO., INC.
812 Branch Ave., Providence 4, R. I.

PROMOTED EXCLUSIVELY TO THE PROFESSION



Perhaps this should be cleared up once and for all. There are *no* lemons in Vi-Daylin. If you've ever tasted Vi-Daylin, this might surprise you. Certainly, it would surprise the youngsters. To most of them, Vi-Daylin is liquid lemon candy, and that's *that*. But if it's deception, it's sensible deception. You never have to badger the kids into taking their vitamins. Nice to know, too, that this matchless matching of candy essence and color elegance can be found in all the forms and formulas of Vi-Daylin.

VI-DAYLIN—Vitamins A, D, B_1, B_2, B_6, B_{12}, C, and Nicotinamide, Abbott; VIDAYLIN-M—Homogenized Mixture of Vitamins with Minerals, Abbott; VI-DAYLIN-T—High Potency Multivitamins, Abbott.

Remember, there are *three* liquid formulas: Vi-Daylin, ViDaylin-M® (with minerals), and ViDaylin-T® (therapeutic). And if patients get a little owlly and won't touch *anything* in a spoon, you can give them the new Chewable (please see back of this page).

Each delicious, 5-cc. teaspoonful of Vi-Daylin supplies the following proportions of the Minimum Daily Requirements of:

		MDR (Children)	MDR (Infants)
Vitamin A	0.9 mg. (3000 units)	1	2
Vitamin D	10 mcg. (400 units)	1	1
Thiamine HCl (B_1)	1.5 mg.	2	6
Riboflavin (B_2)	1.2 mg.	1⅓	2
Ascorbic Acid (C)	50 mg.	2½	5
Nicotinamide	10 mg.	1⅓	2

Also supplies cyanocobalamin (B_{12}) 3 mcg. and pyridoxine Hydrochloride 1 mg.

209035A

Abbott Laboratories
North Chicago, Illinois

Gentlemen,

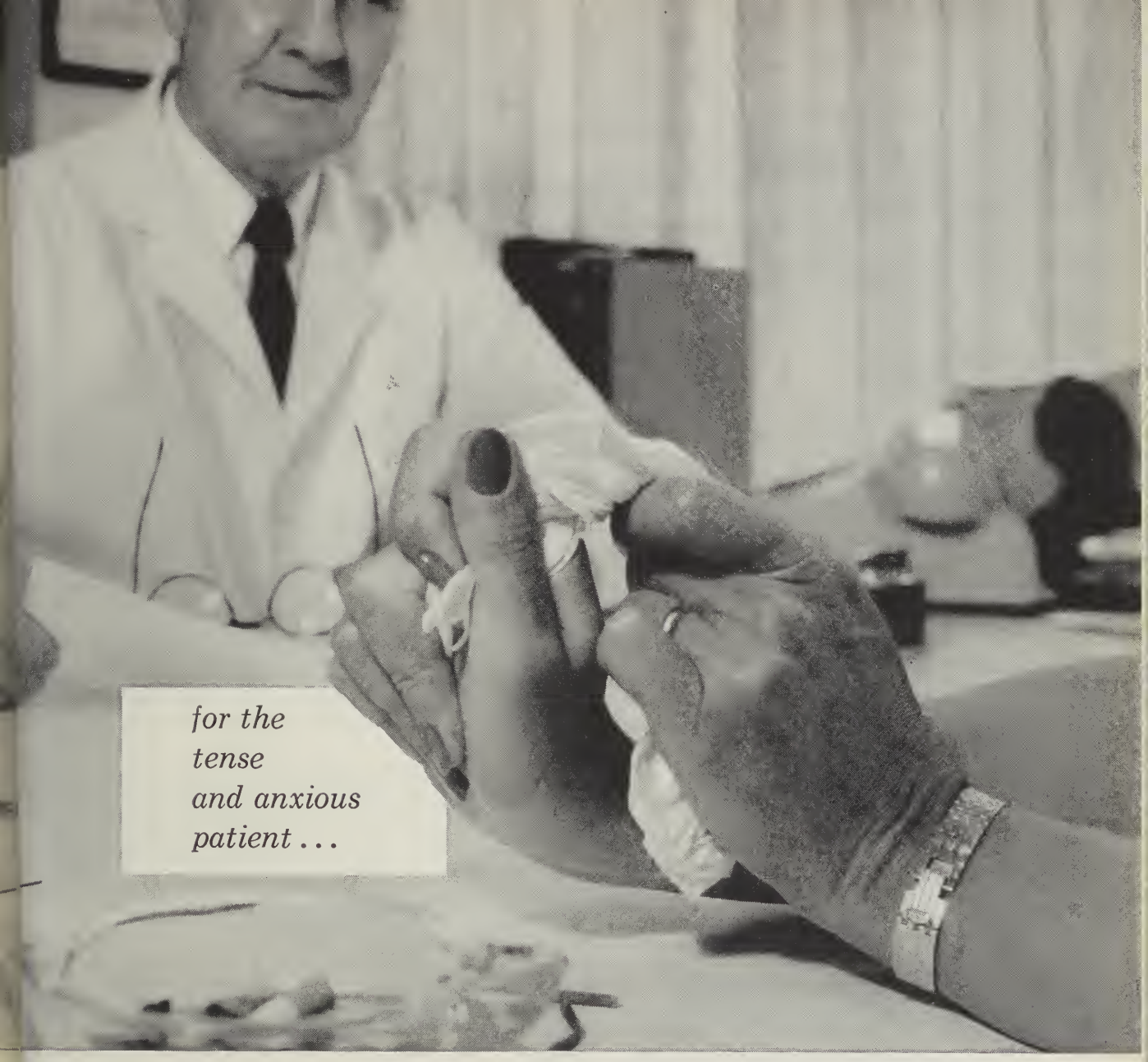
My family enjoys your chewable vitimans. It seems like we can not get enough of your vitimans. My sister enjoys your vitimans so much that she ask for more but cannot have no more. I like them because my mother does not have to worry about scolding us when taking it. Its good because you don't have no worries about something falling on the floor. If you kept on making these vitimans all the worlds children would be happy again. Now I would like to know whether I may have any information on the Middle West. You see my class and I are studying it. So if the information can be given I thank you very much.

"...all the worlds children would be happy again."

(an unsolicited testimonial from an actual letter)



ABBOTT



Sustained tranquilization without autonomic side reactions

- SAFE, CONTINUOUS RELIEF of anxiety and tension for 12 hours with just one capsule—without causing autonomic side reactions and without impairing mental acuity, motor control or normal behavior.
- ECONOMICAL for the patient—daily cost is only a dime or so more than for barbiturates.

Meprospan®-400

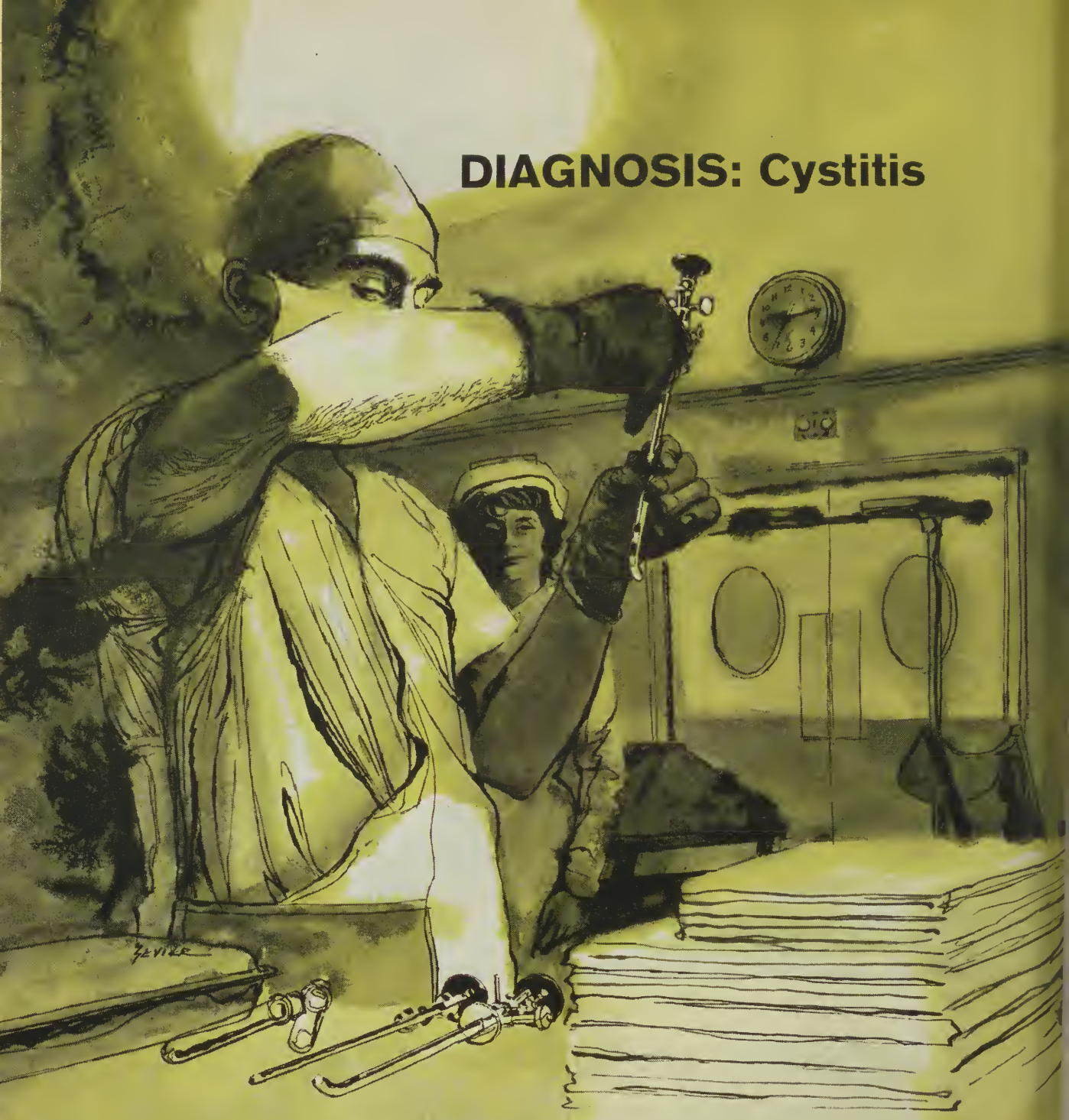
400 mg. meprobamate (Miltown®) sustained-release capsules

Usual dosage: One capsule at breakfast lasts all day; one capsule with evening meal lasts all night.

Available: *Meprospan-400*, each blue-topped capsule contains 400 mg. Miltown (meprobamate).
Meprospan-200, each yellow-topped capsule contains 200 mg. Miltown (meprobamate). Both potencies in bottles of 30.

WALLACE LABORATORIES / *Cranbury, N. J.*

CME-6630



THERAPEUTIC NEED: Suppression of the bacteriuria.

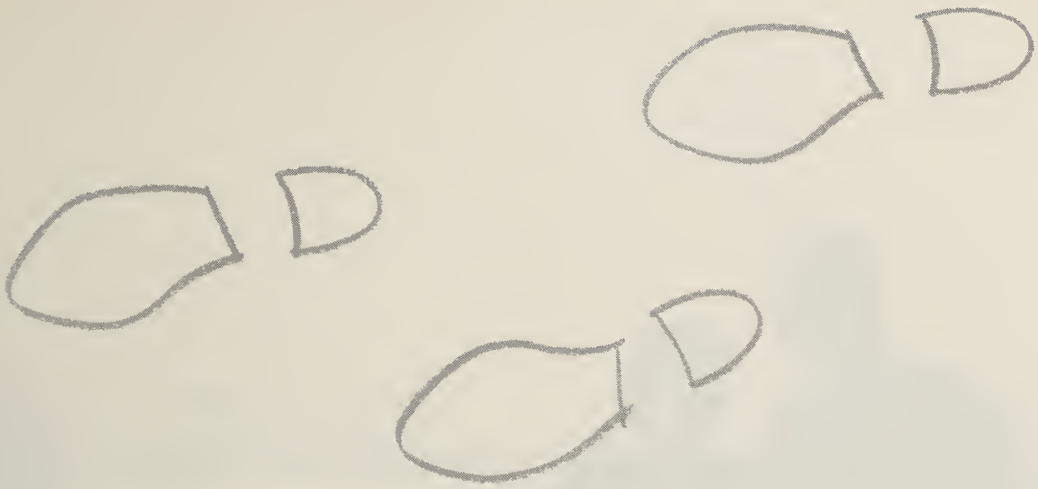
ANTIBIOTIC: DECLOMYCIN

Demethylchlortetracycline Leder

because it provides effective antibacterial activity in th urinary tract.

Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Depart

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York



HERE'S YOUR THREE-STEP PLAN FOR MASTER HEALTH PROTECTION FROM

BLUE CROSS
BLUE SHIELD

Step number one is what we call High Basic Blue Cross-Blue Shield protection. These basic benefits get right at the heart of the usual or routine hospital or doctor bill.

Step number two is Blue Cross-Blue Shield's wonderful Master Health Endorsement for supplementing and upgrading your basic protection. Master Health covers X-ray and laboratory examinations, special accidental injury benefits up to $300, and major medical benefits up to $5,000, in or out of the hospital.

Step number three is our Cancer Endorsement, designed to give you valuable protection against CANCER and ten other catastrophic and long-term illnesses.

If you now have only the basic Blue Cross-Blue Shield protection, you will want to consider adding the Master Health and Cancer Endorsements for the ultimate in health care protection. For complete information about eligibility requirements and rates, call or write today.

Now protecting over 369,000 Mississippians.

MISSISSIPPI
BLUE CROSS
BLUE SHIELD

MISSISSIPPI HOSPITAL & MEDICAL SERVICE/530 E. WOODROW WILSON AVE./JACKSON, MISS./TELEPHONE EM 6-1422



WITH YOUR ENCOURAGEMENT

AND

DEXEDRINE®

brand of dextro amphetamine

SPANSULE®

brand of sustained release capsules

she's losing weight

'Dexedrine' *Spansule* capsules not only control appetite all day long, but at the same time encourage normal activity. This is particularly important because overweight patients are often inactive. In such patients 'Dexedrine' overcomes lethargy, helps renew their interest in doing things—not just eating.

PRESCRIBING INFORMATION

INDICATIONS AND DOSAGE: For the following indications, the recommended daily dosage is one or two 'Dexedrine' *Spansule* capsules, usually taken in the morning: control of appetite in weight reduction; depressive states; alcoholism. In narcolepsy, the recommended daily dosage is up to 50 mg. of 'Dexedrine' by 'Spansule' capsule on arising.

SIDE EFFECTS: Insomnia, excitability and increased motor activity are infrequent and ordinarily mild.

CAUTIONS: Should be used with caution in patients hypersensitive to sympathomimetic compounds; in cases of coronary or cardiovascular disease; and in the presence of severe hypertension.

CONTRAINDICATIONS: Hyperexcitability; agitated pre-psychotic states.

SUPPLIED: 5 mg., 10 mg. and 15 mg., in bottles of 30. (Each capsule contains dextro amphetamine sulfate, 5 mg., 10 mg., or 15 mg.)

Prescribing information adopted January 1961.

Smith Kline & French SK&F *Laboratories*



"opened nose clear to the ears"[1]



This was how one patient described the nasal decongestant action of Dimetapp Extentabs. How would *your* patients describe it? From the first tablet, Dimetapp Extentabs provide prompt and prolonged relief from the stuffiness, drip and congestion of upper respiratory conditions, with exceptional freedom from side effects. The reason is in the formula: the potent antihistamine with side effects as few as placebo,[2] DIMETANE® (brompheniramine maleate, 12 mg.) and two outstanding decongestants, phenylephrine HCl (15 mg.) and phenylpropanolamine HCl (15 mg.)...all in dependable, long-acting Extentab form.

NEW DIMETAPP ELIXIR (one-third the Dimetapp Extentabs' formula in each 5 cc.), for conventional t.i.d. or q.i.d. dosage in a palatable, grape-flavored vehicle.

References: 1. Clinical report on file, Medical Department, A. H. Robins Co., Inc. 2. Schiller, I. W., & Lowell, F. C.: New England J. Med. *261*:478, 1959.

for nasal decongestion **Dimetapp® Extentabs®**

in sinusitis, colds, u.r.i., up to 10-12 hours' clear breathing on one tablet

PHARMACEUTICALS RESEARCH

A. H. ROBINS CO., INC., RICHMOND 20, VA.





The illustration: To dramatize the pain and trauma and healing of the peptic ulcer, our photographer burned a "lesion" into crumpled metal with a blowtorch and photographed it, then repaired the damage and rephotographed the result — the "healed" ulcer.

ulcer under repair

"What results can I expect in my ulcer patients?" Shown below is a tabulation of 795 ulcer patients, reported by 69 investigating physicians, in which glycopyrrolate was the anticholinergic employed. They represent a cross section of ulcer patients of all ages, both ambulatory and hospitalized, under various regimens, from all sections of the country.

Note the pattern of results. Robinul showed an "excellent" or "good" response in over 83% of patients, and Robinul-PH provided similar results in 81%.

As for side effects, these often troublesome extensions of anticholinergic action such as dry mouth, blurred vision, etc., were evaluated as "moderate-to-severe" in only 6.7% of a total of 1705 patients in preliminary investigative studies, 795 of whom are the ulcer cases tabulated here.

We invite you to try Robinul in your own practice. We believe you will find it one of the most effective agents you have ever used for the management of the ulcer patient.

Robinul® (formerly Robanul)
Each tablet contains glycopyrrolate, 1.0 mg.

Robinul®-PH (formerly Robanul-PH)
Each tablet contains glycopyrrolate, 1.0 mg.; and phenobarbital (¼ gr.), 16.2 mg.

Robinul® at work

Brand of glycopyrrolate, Robins

results with Robinul and Robinul-PH in 795 ulcer patients, from 69 clinical investigators*

DIAGNOSIS	ROBINUL					ROBINUL-PH				
	*No. Patients	Excellent	Good	Fair	Poor	*No. Patients	Excellent	Good	Fair	Poor
Marginal Ulcer	11	3	3	3	2	1	0	1	0	0
Pyloric Channel Ulcer	6	3	1	0	2	2	1	1	0	0
Pyloric Ulcer	4	2	1	1	0	1	1	0	0	0
Gastric Ulcer, bleeding	3	1	2	0	0					
Gastric Ulcer	48	31	11	1	5	12	5	7	0	0
Gastric Ulcer, penetrated	1	0	1	0	0	1	1	0	0	0
Gastric Ulcers, multiple	1	1	0	0	0					
Duodenal Ulcer	494	220	195	48	31	99	41	38	13	7
Duodenal Ulcer, bleeding	38	19	15	3	1	2	1	0	1	0
Duodenal Ulcer, obstruction	13	4	3	1	5					
Duodenal Ulcer, perforated	5	2	1	0	2	6	0	3	1	2
Gastric and Duodenal Ulcer	4	2	2	0	0					
Peptic Ulcer, unspecified	25	19	4	0	2	18	8	7	2	1
TOTALS	653	307	239	57	50	142	58	57	17	10
		83.6%					81.0%			

*Clinical reports on file, A. H. Robins Company, Inc.

A. H. Robins Co., Inc.
Richmond 20, Virginia



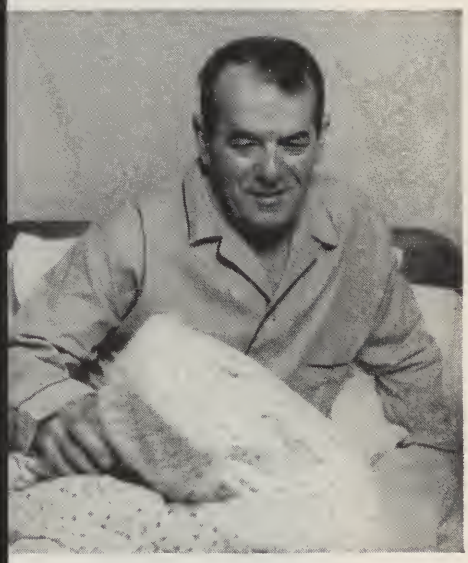
Thanks to 135 tiny "doses" throughout the night

*Trademark, Reg. U.S. Pat.Off.

Copyright 1962, The Upjohn Company



thnght, the arthritic wakes up comfortable



Morning stiffness may be reduced or even eliminated as a result of therapy with the only steroid in long-acting form. And the slow, steady release of steroid makes it possible in some cases to reduce the frequency of administration and/or the total daily steroid dosage.

Medrol* Medules*

Each hard-filled capsule contains Medrol (methylprednisolone) 4 mg. Also available in 2 mg. soft elastic capsules.

Supplied in bottles of 30 and 100.

Upjohn

The Upjohn Company, Kalamazoo, Michigan

Reminder advertisement.
Please see package insert for detailed product information.

RELIEVE THE COLD SUPPRESS THE COUGH WITH NEW

'EMPRAZIL-C'

TABLETS

ANTITUSSIVE ▪ DECONGESTANT ▪ ANALGESIC

Each tablet contains:

Codeine Phosphate*	15 mg.
'Sudafed'® brand Pseudoephedrine Hydrochloride	20 mg.
'Perazil'® brand Chlorcyclizine Hydrochloride	15 mg.
Acetophenetidin	150 mg.
Aspirin (Acetylsalicylic Acid)	200 mg.
Caffeine	30 mg.

*Warning—may be habit forming.

Complete literature available on request.



Also available without codeine as

'EMPRAZIL'®

TABLETS

BURROUGHS WELLCOME & CO. (U.S.A.) INC., TUCKAHOE, N.Y.



Kent's development of the "Micronite" filter revolutionized the cigarette industry. Shortly after introduction of Kent with its famous filter, the swing to filter cigarettes got started in earnest. And no wonder. Kent with the "Micronite" filter refines away harsh flavor, refines away hot taste, makes the taste of a cigarette mild and kind.

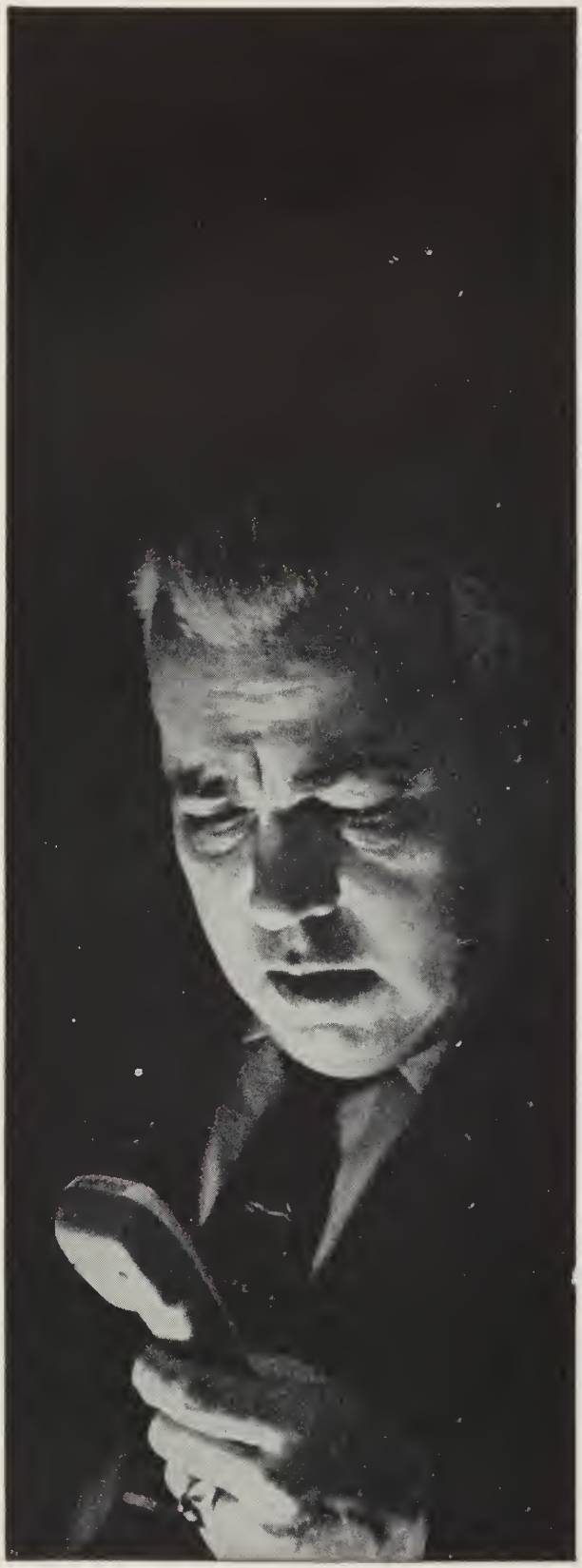
Yes, Kent is kind-tasting to your taste buds, kind-tasting to your throat. Your taste buds become clear and alive with Kent.

• • •

Your taste buds will tell you why you'll feel better about smoking with the taste of Kent.

A PRODUCT OF P. LORILLARD COMPANY · FIRST WITH THE FINEST CIGARETTES · THROUGH LORILLARD RESEARCH

© 1961 P. LORILLARD CO.



Day and night– less wheezing, coughing, labored respiration in chronic bronchitis and emphysema

New Isuprel Compound Elixir is a balanced expectorant bronchodilator. It contains potassium iodide to promote expectoration and relieve dry cough. Its three bronchodilators, Isuprel, ephedrine, and theophylline, keep bronchi continuously dilated. Luminal is included to negate possible side effect from adrenergic medication and to provide very mild sedation for the patient.

New Isuprel Compound Elixir alleviates symptoms...prolongs relief in chronic bronchitis and emphysema.

Each good-tasting vanilla-flavored tablespoon (15 cc.) contains:

Isuprel® (brand of isoproterenol) HCl	2.5 mg.
Ephedrine sulfate	12 mg.
Theophylline	45 mg.
Potassium iodide	150 mg.
Luminal® (brand of phenobarbital)	6 mg.
Alcohol	19%

Adult Dose: 2 tablespoons 3 or 4 times daily.

How Supplied: Isuprel Compound Elixir is supplied in bottles of 16 fl. oz.

Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.

New ISUPREL® compound ELIXIR

Winthrop LABORATORIES
New York 18, N.Y.

ISUPREL AND LUMINAL, TRADEMARKS REG. U. S. PAT. OFF.

1¼ Grs. Ea.
FLAVORED

Living up to a family tradition

There are probably certain medications which are special favorites of yours, medications in which you have a particular confidence.

Physicians, through ever increasing recommendation, have long demonstrated their confidence in the uniformity, potency and purity of Bayer Aspirin, the world's first aspirin.

And like Bayer Aspirin, Bayer Aspirin for Children is quality controlled. No other maker submits aspirin to such thorough quality controls as does Bayer. This assures uniform excellence in both forms of Bayer Aspirin.

You can depend on Bayer Aspirin for Children for it has been conscientiously formulated to be the best tasting aspirin ever made and to live up to the Bayer family tradition of providing the finest aspirin the world has ever known.

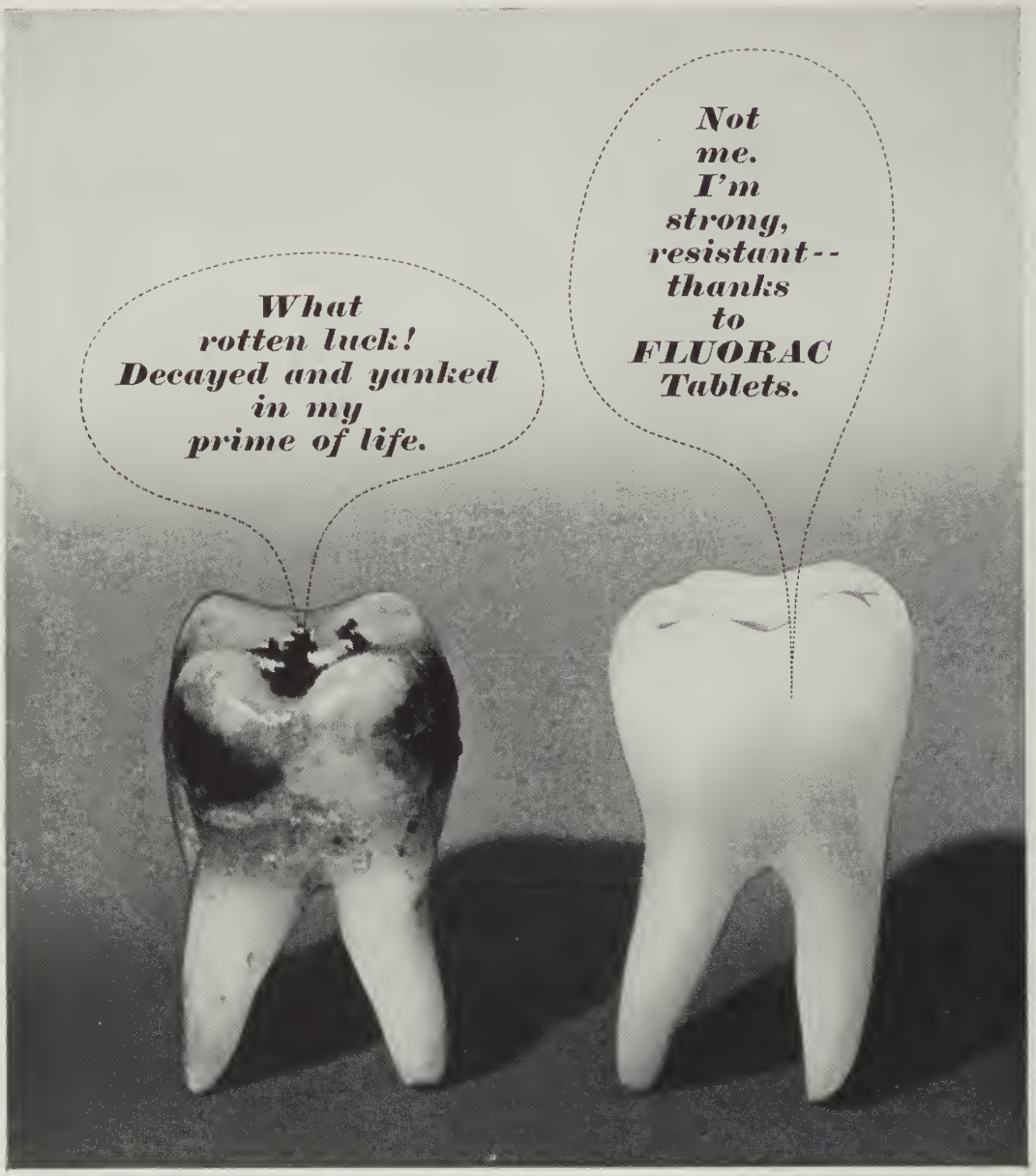
Bayer Aspirin for Children—1¼ grain flavored tablets—Supplied in bottles of 50.

● We welcome your requests for samples on Bayer Aspirin and Flavored Bayer Aspirin for Children.

New
GRIP-TIGHT CAP
for Children's
Greater Protection



THE BAYER COMPANY, DIVISION OF STERLING DRUG INC., 1450 BROADWAY, NEW YORK 18, N. Y.



FLUORAC

Yes, new chewable FLUORAC Tablets provide caries-preventing fluoride in safe daily dosage . . . plus vitamins that contribute to dental health. Deliciously orange-flavored FLUORAC Tablets are readily taken by: older children (chewed, dissolved in mouth or swallowed); pregnant women (from fourth month on to protect fetus); infants (crushed and sprinkled on food). Economical bottles of 100 FLUORAC Tablets on prescription only. Not to be used where fluoride content of water is more than 1 ppm and daily ingestion exceeds 0.5 mg. for age 3 and over, and 0.3 mg. for those under 3.

Each FLUORAC TABLET provides: FLUORIDE (as sodium fluoride) 0.5 mg. ■ PYRIDOXINE HCl (B_6) 2 mg. ■ ASCORBIC ACID (C) 75 mg. ■ VITAMIN A 5,000 U.S.P. Units ■ VITAMIN D 500 U.S.P. Units. ■ Dosage: 1 tablet daily.

SAMPLES AND LITERATURE FROM . . .

U. S. VITAMIN & PHARMACEUTICAL CORP.

ARLINGTON-FUNK LABORATORIES, DIVISION • 800 SECOND AVENUE, NEW YORK 17, N. Y.

NEWSLETTER

MISSISSIPPI STATE MEDICAL ASSOCIATION
JACKSON, MISSISSIPPI

September 1962

Dear Doctor:

What is a physician's authority to require a pharmacist to leave the manufacturer's label on a prescription? He can do it and the Food and Drug Administration can't, under law, restrain him from doing so. But the Mississippi State Board of Pharmacy takes opposite view, qualifying position to say it will not compel a doctor to act one way or the other.

> An Rx is a written expression of the physician's intent that patient be given a specific amount of a drug for use as ordered. As such, MSBP feels that pharmacist's label is sufficient. Law requires name and address of dispenser, physician's name, Rx number, and if ordered by doctor, patient's name and instructions on use.

Most useful medical reference work to emerge in years is AMA's new CMT, Current Medical Terminology. A masterpiece of brevity, the 345 page book catalogs for first time all significant diseases along with synonyms, causes, symptoms, signs, complications, usual findings, and tests. It's a bargain at $2 per copy, postpaid from AMA, Chicago.

All the labor difficulties in one Mississippi medical facility aren't in the OB suites. Jackson Building Trades Council is on strike against contractors and work has stopped on $15 million worth of new construction, including UMC's new $3 million research building. Wage dispute affects 1,000 union members. Federal mediators are working to settle strike.

"We-quit-no-you're-fired" was the gist of the parting of United Cerebral Palsy national group and the Mississippi chapter. Local organization was quoted as objecting to sending national 25 per cent of funds collected and certain UCP policies. Changing name to Cerebral Palsy Association of Mississippi, local body will continue independently, devoting all funds to serving children involved.

The "black death," killer of 25 million Europeans during the 14th century, stalked England last month when a germ warfare scientist died. Geoffrey Bacon, 44, was said to be a victim of pneumonic plague, variant of bubonic strain. Officials said he was working with virulent bugs at hush-hush Porton germ warfare center.

Sincerely,

Rowland B. Kennedy
Executive Secretary

Thalidomide Tragedy Shakes Public and Scientific World, Ethical Drug Industry Threatened With Punitive Actions

The incredible, tragic saga of thalidomide furnished as much grist for the political mills as it did heartbreak and fear. Keyed by the European upsurge of phocomelia, the story broke big when announcement was made that 1,231 U.S. physicians had given drug to 15,905 patients in clinical investigations for Merrell. Of total, 207 were pregnant women, none of whom has so far delivered a malformed baby. Six investigators were Mississippians, all of whom have returned drug to manufacturer.

Washington adversaries of the pharmaceutical industry had a heyday, exploiting every aspect of sensationalism to throttle drug makers. Inside the inside story, most pernicious threats to emerge were:

Federal control of ethical drug manufacturing - a quick, emotional legislative grab of patent privileges, sayso as to efficacy and safety, and even generic prescribing.

Serious impairment of the clinical investigation system - paradoxically damning the means by which thousands of good drugs have been developed.

Neither medicine nor pharmaceutical industry minimizes concern over thalidomide nor apparent causal relationship between drug and phocomelia in some way not now understood. AMA's Council on Drugs, National Institutes of Health, Pharmaceutical Manufacturers Association, and countless private firms have begun intensive research programs to solve mystery. Situation is crucial in central Europe, United Kingdom, and British commonwealth nations where drug has been marketed three years under 51 brand names. Great Britain expects more phocomelia births.

Two major drug makers were caught up in thalidomide furor on related and non-related side issues. J.A.M.A. author Helen B. Taussig said drug "was first conceived and made by Ciba" and noted molecular structural similarity of thalidomide to glutethimide (Doriden, TM Ciba). Company categorically denied any association with drug and countered that glutethimide differs substantially from former both pharmacologically and metabolically. Searle's Enovid came under fire as having suspected relation in cause of thrombophlebitis but AMA and FDA gave preparation clean bill of health.

Most observers feel that tighter FDA controls on testing and marketing will be sum total of action this year. Controversial drug control bill S. 1552, heavily amended in senate Judiciary Committee, will probably pass in present form, now acceptable to medical and drug groups.

Rx THERAPY FOR RETIREMENT

An easy-to-take prescription to insure retirement security . . . a regular savings plan. Savings placed at First Federal of Jackson are protected by high reserves, the highest type insurance of accounts and conservative management policies.

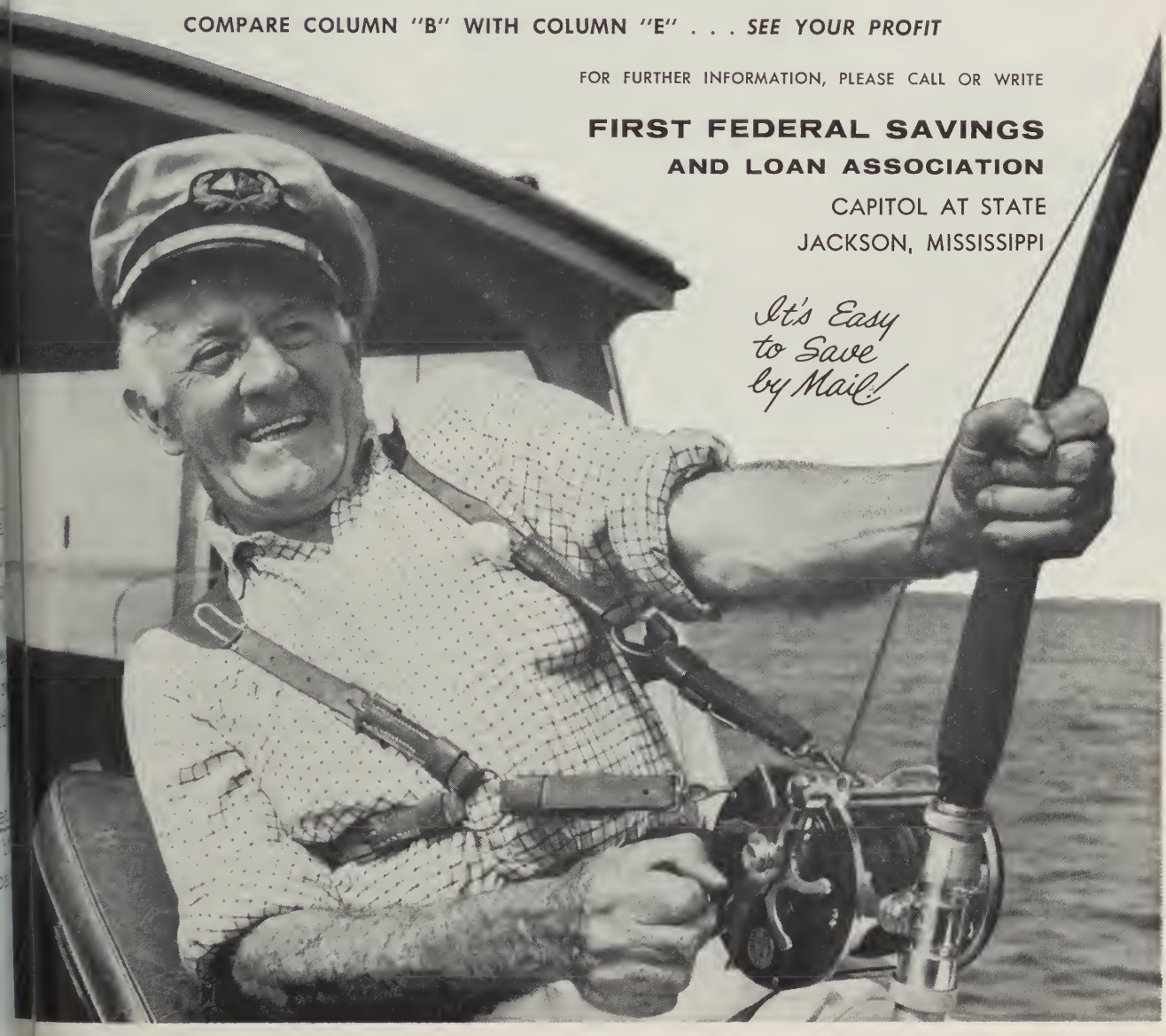
These safeguards, plus high dividends, assure financial security when a regular savings plan is followed. Start now to prepare for retirement years. The chart below, based on 4½% dividend, compounded semi-annually, illustrates how easy it is.

A Amaunt yau save each manth far first 20 years	B Actual amaunt saved by yau far 20 years	C Tatal savings with dividends far 20 years	D Yau withdraw manthly for next 20 years	E Total withdrawals during secand 20 years
$ 30	$ 7,200	$11,632.21	$ 72.38	$17,371.20
50	12,000	19,387.01	120.64	28,953.60
70	16,800	27,141.82	168.90	40,536.00
90	21,600	34,896.62	217.15	52,116.00
100	24,000	38,774.02	241.28	57,907.20

COMPARE COLUMN "B" WITH COLUMN "E" . . . *SEE YOUR PROFIT*

FOR FURTHER INFORMATION, PLEASE CALL OR WRITE

FIRST FEDERAL SAVINGS
AND LOAN ASSOCIATION
CAPITOL AT STATE
JACKSON, MISSISSIPPI





Put your low-back patient back on the payroll

Soma relieves stiffness —stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, fast!

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

> Kestler reports in controlled study: *Average time for restoring patients to full activity: with Soma, 11.5 days; without Soma, 41 days.* (*J.A.M.A. Vol. 172, No. 18, April 30, 1960.*)

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. **USUAL DOSAGE: 1 TABLET Q.I.D.**

The muscle relaxant with an independent pain-relieving action

SOMA®

(carisoprodol, Wallace)

Wallace Laboratories, Cranbury, New Jersey





Flavor you never thought you'd get from any filter cigarette!

If you're hungry for flavor, Tareyton's got plenty—and it's *plenty good!* Quality tobaccos at their peak go *into* Tareyton! Then the famous Dual Filter *brings out* the best taste of these choice tobaccos. Try a pack of Dual Filter Tareytons—you'll see!

Dual Filter makes the difference



Product of *The American Tobacco Company* —
"Tobacco is our middle name" ©A.T.Co.

DUAL FILTER *Tareyton*

For Bronchial Asthma

EACH TABLET CONTAINS

Aminophylline	2 grains
Ephedrine HCl	¼ grain
Potassium Iodide	3 grains
Phenobarbital	⅓ grain

mudrane®



A combination of the most widely recognized drugs for the treatment of asthma . . . . compounded for maximum absorption and balanced action, and buffered for tolerance

Dispensed in bottles of 100 and 1,000 tablets

WM. P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA

Manufacturers of ethical pharmaceuticals since 1856



Diet patients find an incentive in appetizing "bulk" foods like these.

How to help your patient stick to a "regularity" diet

The secret ingredient in a successful diet is acceptance. Bulky foods, essential to a "regularity" diet, will have more appeal if they are attractively prepared.

Variety helps a patient follow a diet enthusiastically, too. Chilled orange and apple compote is inviting, rich in cellulose and pectin which absorbs fluid to form smooth bulk. Beets and carrots are also good pectin sources.

Cranberries can be added to oatmeal muffins to give the dieter cellulose plus Vitamin B complex. And liquids are vital, of course—8 to 10 glasses a day.



A glass of beer can add zest to a patient's diet

8-oz. glass supplies about 1/8 minimum Niacin requirements and smaller amounts of other B Complex Vitamins (Average of American Beers)

United States Brewers Association, Inc.

For reprints of this and 11 other diet menus, write us at 535 Fifth Avenue, N.Y. 17, N.Y.



GLYNAPHYLLIN

A bronchial relaxant preparation designed for the treatment and prophylactic management of bronchial asthma, asthmatic bronchitis and other bronchial diseases including chronic pulmonary emphysema in which spasm of the bronchial smooth muscle may play a role.

COMPOSITION:

Each Tablet contains:

Aminophyllin	3 grains
Phenobarbital	1/4 grain
Ephedrine Sulfate	3/8 grain

ADMINISTRATION AND DOSAGE:

For the prophylactic management of the asthmatic, 1 tablet every 6 or 8 hours may suffice, although the physician may employ larger doses for this purpose. In acute attacks of bronchial asthma, GLYNAPHYLLIN may be considered an adjunct to other forms of treatment and dosage must be adjusted to the individual patient.

CONTRAINDICATIONS:

GLYNAPHYLLIN should not be administered to patients who suffer from associated gastro-intestinal disease which may be aggravated by nausea and vomiting. The preparation is contraindicated also in hypertension and other cardiovascular diseases in which ephedrine is undesirable. Because of its phenobarbital content, GLYNAPHYLLIN can be habit forming and is contraindicated in patients in whom drowsiness is a significant disadvantage.

HOW SUPPLIED:

In bottles of 100, 500 and 1,000 tablets.

GLYNAPHYLLIN
is another "Established Need" product

(FTP) First Texas *Pharmaceuticals, Inc.*

DALLAS • SINCE 1901 • ATLANTA

Schering

Naqua®

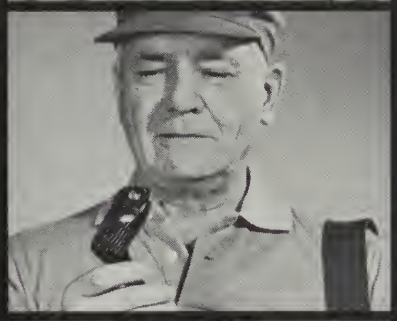
brand of trichlormethiazide

to help them live with their hypertension

Good start on the day's work (sleep is restful, morning headache gone)



Golf today, fishing tomorrow (retired but not easily tired)



Housework in a.m., shopping in p.m. (B.P. down, dizzy spells relieved)



Gardening is enjoyable again (edema gone, spirits up)



often the only therapy needed to control blood pressure and relieve symptoms in mild or moderate cases*

NAQUA potentiates other antihypertensives when used adjunctively.... Side effects are minimal.... Economically priced.

Packaging: NAQUA Tablets, 2 or 4 mg., scored, bottles of 100 and 1000.

For complete details, consult latest Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Bloomfield, New Jersey.

*Schaefer, L. E.: Clin. Med. 8:1343, 1961.

S-963



. . . even though surrounded by allergens. Co-Pyronil® provides smooth, continuous control of allergic symptoms—relief in minutes for hours, with virtually no side-effects. And there is a dosage form for every allergic patient.

Pulvules® · Suspension · Pediatric Pulvules **Co-Pyronil®**
(pyrrobutamine compound, Lilly)

Each Pulvule contains Pyronil® (pyrrobutamine, Lilly), 15 mg.; Histadyl® (methapyrilene hydrochloride, Lilly), 25 mg.; and Clopane® Hydrochloride (cyclopentamine hydrochloride, Lilly), 12.5 mg. Each pediatric Pulvule or 5-cc. teaspoonful of the suspension contains half of the above quantities. This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature.
Eli Lilly and Company, Indianapolis 6, Indiana.

Lilly

258017

JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION
September, 1962, Vol. III, No. 9

ORIGINAL PAPERS

The Fourth Environment

LAWRENCE W. LONG, M.D.
Jackson, Mississippi

In a program unique for a state medical association, MSMA brought the world of space to its 94th Annual Session held May 7-10 in Jackson. Three scientists, all pioneers in the field of aerospace medicine, and Senator John C. Stennis, member, Senate Committee on Aeronautical and Space Sciences, addressed a half-day Symposium on Space Medicine. Journal MSMA takes pride in publishing these original papers of international importance from the program. Dr. Long, in his keynote remarks to the Symposium, put the new world of space into a medical perspective.

As the sciences of astrophysics and bioastronautics expand their fields of knowledge, man's frailty is more emphatically underscored. For all the wonders of the human mind and body, the environmental ideals demanded for their unsupported existence are exacting beyond belief.

The earth creatures with whom medicine is concerned must live in a thin plane of gaseous substance scarcely three miles thick. They can survive only a matter of minutes without oxygen and days without food and water. In a galaxy of temperature extremes between absolute zero and that of thermonuclear fusion, man tolerates limits measured on half the centigrade scale.

And much of this ideal environment is hostile to his paper-thin existence, what with pathogenic agents, natural state poisons, and animal, insect, and reptile life.

Space science is validating what philosophy has postulated.

But over the span of recorded history, man has been successful in leaving his narrow, ideal environment for limited excursions into those physical states hostile to life. The second environment, obviously, was beneath the surface of the waters covering most of this planet. Thousands of years were required to develop the means for increasing the time during which he might survive in this hostile environment. This is casually seen by dating the moment a prehistoric human being first learned to dive and relating it chronologically with more recent achievements in subsurface endurance by nuclear submarine crews.

The earliest available records of human intelligence are replete with man's desire to master the art of flight. This notable achievement was no less important and no less difficult in its day than our present venture into space. Thus, the state of flight was the third environment, an area into which man has been able to enter for only 1 per cent of his 6,000 years of recorded history.

With flight came a new medical discipline: aviation medicine. As the dimension of altitude beyond the lower atmosphere ranged into the

---

1961-62 President of the Mississippi State Medical Association.

Read before the Symposium on Space Medicine, 94th Annual Session, Mississippi State Medical Association, Jackson, May 9, 1962.

ionosphere and the stratosphere, systems for sustaining life became infinitely more complex to meet geometrically increased demands of a physiology which is comfortable only within narrow limits.

The final lengths to which man can go in atmospheric flight are now precisely known. There remains only to develop the ultimate vehicles in speed and altitude beyond which no useful purpose can be served. This knowledge pinpoints, for practical intent and purpose, the length to which medicine must also go to accommodate the last chapters in this adventure.

But the success of Project Mercury signaled a new era. Again, man is standing on the dunes of Kitty Hawk, crossing the threshold of the fourth environment.

The conquest of space will not be purchased cheaply but it would be far more costly not to purchase it at all.

The national commitment in the space program is an affirmative response to challenge in medicine, rocketry, electronics, exobiology, astronavigation, communications, and nearly every scientific field in which man claims sophistication. But without those physicians who have pushed beyond the earth-bound peripheries of medical science, none of these achievements would be possible or even useful because man, and man alone, must survive in order to master this fourth environment.

Man must go into space.

Dr. Hubertus Strughold has been called the father of space medicine. It was he who related physics and physiology, recognizing the problems and demands upon the human being in a space environment. Dr. John Paul Stapp has been more than a theorist in his pioneering work in deceleration and impact trauma. Early in his studies, Dr. Stapp appreciated realistically that astronauts would find reentry into a friendly environment no easy accomplishment.

Dr. David Goodman Simons went from the clinic and laboratory to the very edge of space in the exciting "Manhigh" balloon flight. Each of these physician-scientists has opened doors on new and important medical knowledge born of technological necessity but nurtured into universal value for all medical science.

Would it not have been marvelous if our medical forebearers might have attended a symposium on May 9, 1862, before which Fleming might have talked on antibiotics, Halstead on surgery, Banting on diabetes, and a host of others including Ehrlich, Trudeau, Cecil, and Cushing!

But at this moment, those physicians who are leading the way in space medicine are able to show us the medical future as it might have been shown to our great grandfathers a century ago. Today's clinician, with his skills, knowledge, and the chemotherapeutic armamentarium, is fast wiping out the infectious diseases, repairing the vascular system, mastering the baffling problems in metabolic disorders, the forging ahead in the fight against mental illness. But he is a novice before the medical problems of man in space. And while patients in Corinth and Pass Christian, Greenville and Pascagoula may not soon be subjected to the physiological rigors of space flight, they may be better served with the medical knowledge which has made space flight possible.

Although most of us will leave the earth only to the extent made possible by Delta and TWA, every physician ought to be a vicarious participant in man's exciting entry into the fourth environment. ★★★

775 North State Street

IT DRIVES THEM TO DRINK

A new survey by the California Department of Public Health found that among Californians who drink, 76 per cent do so while watching TV.

How Bioastronautics Looks at the Moon

HUBERTUS STRUGHOLD, M.D., Ph.D.
Brooks Air Force Base, Texas

Recognized by his colleagues as the father of space medicine, Dr. Strughold was among the first to study the problems of the human organism in a space environment. Since Feb. 1, 1962, he has been assigned as chief scientist of the Aerospace Medical Division, Air Force Systems Command. Prior to this appointment he had served as chief of the Department of Space Medicine, Randolph AFB, Texas; professor of aviation medicine of the Air University, and first professor of space medicine of the Air University. This paper graphically describes the physiological aspects of life for man on the Moon.



DR. STRUGHOLD

THE MOON IS THE FIRST astronautical target because it is situated closest to the Earth—at a distance of 384,000 km. (240,000 miles), but its suitability for such a target is determined by its ecology or, we may say, by its ecological profile. A description of the ecological profile of an astronautical target celestial body, i.e., an ecological evaluation of the physical conditions from a space-medical or bioastronautical point of view, cannot be confined to its surface conditions; rather, it has to begin at considerable distances. It must start at that distance at which forces exerted by this body becomes flight-operationally and environmentally effective. With regard to the Moon, this begins at a distance of about 60,000 km. (34,000 miles), where the vehicle crosses the Earth-Moon gravitational divide and enters the Moon's sphere of predominant gravitational influence or, briefly, its *gravisphere*. From this point on, a space vehicle is within the selenocentric gravitational space and can operate as an exploratory circumlunar space station, or it can go into a parking orbit for rendezvous maneuvers preparatory to landing.

There are no topographical environmental restrictions from a Van Allen-type radiation belt as in circumterrestrial space because the lunar magnetic field forces are not strong enough to trap particle rays. According to telemetered recordings from the Russian Lunik, 1960, the magnetic field of the Moon is 400 times weaker than the geomagnetic field. In the circumlunar environmental profile, therefore, there is no *magnetosphere,* a term coined by Thomas Gold for that region surrounding the Earth within which its magnetic field is effective in influencing the flux of particle rays by trapping, deflecting, and channeling action. Furthermore, the Moon has no atmospheric medium dense enough to produce drag on a vehicle engaged in circumlunar operations, even close to the surface.

Of bioastronautical interest in such operations are the lunar satellite velocities and periods of revolution because of the different durations, during which an orbiting vehicle is exposed to sunlight or moves through the Moon's shadow. (Of course, these particular light and shadow durations also depend on the vehicle's orbital inclination.)

Table I shows the velocities and periods of revolution of artificial satellites in circular orbits at various altitudes. To orbit around the Moon at an altitude of 10,000 km. takes 1 day, 7 hours, 42 minutes. Maximally, about 5 per cent of this time, i.e., 1½ hours, could be spent in the Moon's shadow. This certainly would make itself felt in the cabin's temperature control. At 30 km. (20 miles) altitude the period of revolution is 1 hour, 51 minutes. This altitude would offer a practical distance for preliminary lunar surface observa-

From the Aerospace Medical Division, Air Force Systems Command.

Read before the Symposium on Space Medicine, 94th Annual Session, Mississippi State Medical Association, Jackson, May 9, 1962.

tion. Dipping below 10 km. (6 miles) would involve the risk of hitting a mountain peak, the highest of which is close to the height of Mount Everest. Whether or not there are natural lunar satellites of macro- or micro-dimensions within the Moon's gravisphere is an open question, but probably not of astronautical significance with regard to collision hazards. At least, Clyde W. Tombaugh, in a photographic search during the lunar eclipse in 1956, could not detect any.

TABLE I

MOON SATELLITES

Altitude above Surface	*Speed in Orbit*	*Period of Revolution (sidereal)*	*Altitude above Surface*
KM.	KM/SEC	DAYS HR. MIN.	MILES
0	1.679	1 48	0
10	1.675	1 49	6.2
30	1.665	1 51	31.1
100	1.633	1 58	62.1
200	1.590	2 08	124.3
500	1.480	2 38	311
1,000	1.338	3 34	621
2,000	1.145	5 42	1,243
5,000	.853	13 47	3,107
10,000	.646	1 7 42	6,214

From Strughold, H., and Ritter, O.: Orbital Characteristics of Earth and Moon Satellites, Aerospace Medicine 32:423, 1961.

These are, in brief, the ecological conditions with their bioastronautical implications within the lunar gravitational space. Some of them determine, or at least influence, the ecological situation on the Moon's surface.

LUNAR ATMOSPHERE

With a surface gravity of $\frac{1}{6}$ g and its given distance from the heat-radiating sun, the Moon cannot hold much atmospheric material. Most of it, especially the lighter molecules, would attain the critical kinetic energy for escape or the lunar escape velocity of 2.38 km/sec. It is therefore generally assumed that the Moon has only a very tenuous atmosphere, if any. Its constituents might be argon, various volcanic gases, and SO_2 and H_2S. The density of this gaseous envelope has been estimated to be between 10^{-8} and 10^{-18} of that of the Earth's atmosphere at sea level. The higher value would correspond to that at an altitude of 160 to 200 km. in the Earth's atmosphere, the lower value to that of the interplanetary medium. Such a rarified lunar atmosphere, if it can be called that, of course fails to provide any life support, nor does it offer any protection from cosmic factors, such as meteoritic material and particulate radiation, as the Earth's and Mars' atmospheres do by their filter function, not to mention that it does not provide any aerodynamic flight support.

TIME RESERVE

Exposed to this environment, the unprotected human body faces anoxia at zero altitude and would show in fractions of a minute all the pathological symptoms of ebullism, i.e., profuse evaporation or boiling of body fluids, and the "time of useful consciousness" or "time reserve" would be less than 15 seconds. In the Earth's atmosphere, this vacuum effect is experienced at a height of 19 km. (63,000 ft.) and on Mars at 5 km. (11,000 ft.). At these pressure levels, the human body requires complete anti-vacuum protection in the form of a full-pressure suit or a hermetically sealed compartment, in which an artificial atmosphere must be provided. In case of rapid decompression, we would not be dealing with high altitude physiology, as in terrestrial atmospheric flights below 19 km. or as on the surface of Mars, but, rather, with vacuum pathology, immediately. The cause of such an emergency event may be a puncture of the protective equipment by a meteorite.

How great the frequency of meteoritic impacts with puncture capabilities and erosion effects will be on the Moon is difficult to say at present. Basically, it is the same as in free space except that it is cut to one-half of that value by the Moon's solid body itself. The probability that an astronaut outside the Moon base will be struck by a meteorite is probably of no great concern. One thing seems to be sure—the pockmarked face of the Moon, not affected by water and wind erosion as is the Earth, is a meteoritic history book of long-passed time. The meteoritic population in solar space was highest at protoplanetary or, in terms of the Moon, at protolunar times some five billion years ago when the solar system was formed. In that archeoselenic period, a lunar expedition would probably have been impossible because of the heavy meteoritic bombardment, not to mention the volcanic turmoil. On Earth the traces of this meteoritic bombardment have been erased by meteorological erosion and only in arid or perma-frost regions have meteor craters a chance to survive for some time.

At this point I should like to mention that, of course, sound propagation is impossible above the surface of the airless Moon. If a meteoritic impact detonation should occur at visible distance, the lunar expeditioners would not hear it directly, but they may feel the tremor of the ground by means of the mechanoreceptors in the skin and muscles of their feet, and possibly they may hear something through ground conduction. In the Earth's atmosphere, propagation of sound becomes impossible above 100 km. (anacoustic zone) because above this altitude the free path between the air molecules is greater than the wave length of sound. On the Moon, the environment for the ear is at the zero decibel level immediately above the surface; it is the "silence of space" with its psychophysiological implications. Audiocontact on the Moon outside the base will be accomplished by radio, but since this means of communication also connects the occupants of a Moon base with the communication centers on Earth, they are not necessarily isolated.

A thin gaseous medium ineffective for sound propagation also has no absorbing power or filter capabilities for energetic radiations. On Earth we live under the shielding mantle of a dense atmosphere with strong and selective filter functions. On the airless Moon, all types of radiations found in space have direct access to its surface in full intensity and without change in spectrum or composition. In brief, whereas the environment on Earth is essentially a dense atmospheric environment with mild radiations, the lunar environment is essentially a radiation-vacuum environment.

PARTICLE RAYS

Concerning particle rays on Earth, these rays penetrate the atmosphere in their primary form and energy down to about 30 km.; from here on they are transformed through collisions with the air molecules and atomic nuclei into secondary and tertiary rays, to which we are exposed on the Earth's surface. On the Moon no such changes occur and the particulate rays are of the primary type as they are found in space. Furthermore, on Earth the magnetic field exerts some protective function. Up to 600 km. altitude and 40° north and south latitude, low energy particles are deflected back into space by the magnetic field forces. Others are prevented from reaching the atmosphere because they are trapped over the equatorial regions; only in the polar regions are they channeled into the atmosphere and then absorbed, causing the polar lights. No such magnetically induced topographical diversification of the particle rays can be expected on the Moon. The particle ray flux is essentially omnidirectional as it is in deep space beyond the Van Allen Belt; in addition, the Moon's surface is open to the unidirectional flux of solar cosmic rays and plasmatic winds caused by solar flares. Thus, the accent with regard to radiation hazards and necessity of shielding, which on Earth lies in a belt above its atmosphere, is shifted on the Moon to the environment immediately above its surface. And the physical effects in the form of ionizations and nuclear transformations, which on Earth take place in the upper atmosphere, are concentrated on the Moon in a thin surface layer of the solid ground.

The material of the Moon's surface, for billions of years under the bombardment of particle rays from all directions, might therefore show the effects of what has been called electroerosion (K. Buettner). Similarly effective in this respect might be the ionizing section of the solar electromagnetic radiation spectrum such as x-rays and ultraviolet rays.

ULTRAVIOLET RAYS

The solar electromagnetic spectrum as found in space includes the range from about 6 Angstrom to radiowaves of more than 10 meters. During solar flares the shortwave range is intensified and may extend down to 2 Angstrom. In the process of electroerosion of the Moon's surface, ultraviolet rays may play an important role, as already mentioned. Fred Singer and F. H. Walker recently advanced the theory that microscopic meteorities, now called "nanometeorites," constantly pelting the Moon's surface, may raise a flurry of ionized dust and electrons on the sunlit side of the Moon. In this way a dense electronic layer, with 100,000 to 1,000,000 electrons per cm., may rise up to about one meter above the Moon's surface and, decreasing in density with height, may blend at about 15 meters with the general electron density of space. If this is found to be true, then the selenonaut would be surrounded by an environmental medium similar to that of the F-layer of the Earth's ionosphere. During the lunar night, this electron layer, of course, would disappear.

With regard to ultraviolet rays, the ecological situation on the Moon's surface is similar to that encountered above the Earth's ozonosphere, i.e., above 45 km. Terrestrial visitors on the Moon, however, will be sufficiently protected by their

equipment from these sunburn-producing rays. Transparent surfaces on lunar bases should not be made of materials sensitive to ultraviolet radiation.

PROBLEM OF VISION

Of particular ecological interest is the range in the electromagnetic spectrum from 380 to 760 Angstrom to which the retina of the human eye is attuned. With this we arrive at the problem of vision and the visual scenery on the Moon and as observed from the Moon. Vision is the most vital function in the psychophysiological sensory structure of man. Furthermore, the retina of the human eye is an indispensable and irreplaceable sensor in the scientific exploration of the surrounding lunar environment and of the far reaches of the cosmos. Actually, we can and must make predictions about the photic environment on the Moon prior to a lunar scientific expedition, in order to make certain preparations.

The light conditions in any environment are determined by the light sources and the optical properties of the environment itself. The light sources on the Moon are the same as on the Earth, the only difference being that in the lunar sky the Moon as a light-reflecting body is replaced by the Earth. With regard to the optical properties of the environment, the photic conditions on the airless Moon are similar to that in the vacuum of space, i.e., there is no Rayleigh scattering of light and, therefore, we have a permanently black sky despite a bright, shining sun. Against this black background the stars are just as visible during the lunar day as during the lunar night, provided the eye is dark-adapted. They will appear about 30 per cent brighter and do not twinkle because there is no interference by atmospheric absorption or turbulence. Airglow, which gives the night sky on Earth a slightly luminosity, is of course absent in the lunar sky.

Basically, then, we can differentiate between two types of skies as seen from the surface of a celestial body: atmospheric skies with some specific varieties, and nonatmospheric skies. Earth and Mars, for instance, have their own specific terrestrial and Martian sky. The Moon has the common universal space sky, the same as observed from a vehicle in space.

The dominant light source—the sun—has the same apparent size as seen from Earth. Because of the absence of a light-scattering and reflecting atmosphere it is more whitish in color, shows no color changes at sunrise and sunset, and shines, without an aureole, as a luminous disc on a black background. Against the brilliance of this solar disc the sun's corona will not be visible to the human eye.

The illuminance from the sun is about the same as that at the top of the Earth's atmosphere, namely, 140,000 lumens per m^2, or lux. For comparison: on the Earth's surface, solar illuminance is maximally a little over 100,000 lux. On the Moon, full solar illumination is immediately observed as soon as the sun rises over the horizon.

The direct sunlight without indirect light from the sky represents, physiologically, a strange optical situation approximated on Earth only under artificial conditions, such as theatrical stage lighting. Everything that is exposed to sunlight appears bright, with variations, of course, depending upon the reflecting power of the material; everything in the shadow appears dark for a bright-adapted eye. Light and shadow dominate the lunar scenery, which poses problems in the field of contrast vision. Transparent surfaces of the lunar base should have light-scattering properties. And when a selenologist, i.e., a moon researcher, leaves the tightly sealed laboratory to study the lunar surface, he should perhaps wear a light-scattering visor on his helmet, serving as a kind of blue sky simulator to weaken and diffuse the sun's rays and to produce skylight conditions to which he was accustomed under the blue dome of the terrestrial atmosphere. The sunlit terrain on the Moon probably will not appear brighter than the landscape on Earth because of the low lunar reflecting power or albedo (7 per cent); in other words, 93 per cent of the incident light is absorbed and 7 per cent reflected.

The light situation in the small lunar craters is, of course, of special interest because they might be selected as sites for a laboratory. There may be a great variety of light effects as the result of shadows and of reflected solar illumination from opposite sunlit crater rims, which actually is moonlight on the Moon. Reflection and re-reflection are the physical processes behind the visual scenery in craters and rills. "Seeing" from a lunar observatory should always be good because no lunar atmospheric turbulence interferes. With the naked eye, the discrimination threshold of distances between two points on Earth is about 100 km., if the Earth's atmosphere permits good visibility.

Looking directly into the sun is hazardous because this can cause a thermal coagulation of the retinal tissue, or a retinal burn of various degrees,

similar to those observed after atomic flashes or, as often described in the ophthalmological literature under the name "eclipse blindness" (scotoma helieclipticum), which is frequently acquired when a solar eclipse is observed with an insufficiently smoked glass. On the Moon, with its typical space sky, the same can be expected. Precaution, therefore, is indicated, and protection of the eyes is required, preferably by means of automatically functioning light- and heat-absorbing glasses consisting of photoreactive material, reminding us somewhat of the color changes of the skin of a chameleon.

The day-night cycle on the Moon is of 27.3 days' duration. Such long days and nights cannot serve as a "zeitgeber" (time giver) for regulation of the sleep-and-wakefulness cycle of the selenonauts. This probably will be determined by their internal physiological clock as inherited from their Earth life, perhaps somewhat modified by their activities and by the lower lunar gravity.

But we must also consider the earthlight on the Moon. The Earth appears about four times as large in diameter as the sun or as the Moon appears to us on Earth, and seen from a fixed base it always remains at the same spot in the sky, with only slight variations due to the Moon's librations. The Earth's reflected sunlight is essentially bluish in color. The earthlight on the Moon at full Earth may provide an illuminance value about 80 times higher than the lunar illuminance on Earth at full Moon. Such an illumination goes far beyond the threshold for reading and color discrimination. All in all, the earthlight may be a welcome, useful component in the photic environment for a terrestrial visitor on the Moon.

PHOTOSYNTHETIC REGENERATION

Solar illuminance on the Moon is biologically important in another respect, that is, with regard to photosynthetic regeneration of the intrabase environment. For this important component of the life-supporting system of the Moon base, the sun offers a rich source of energy as long as it is over the horizon. During lunar night nuclear power has to replace it. The earthlight on the Moon is too weak for utilization in photosynthetic devices.

Solar visible light is also a source of thermal energy. An additional carrier of heat energy is the infrared rays, conventionally called heat rays. Heat radiation and temperature are vital features in the ecological profile of the Moon.

The total thermal irradiance from the sun upon the Moon is practically the same as at the top of the Earth's atmosphere, namely, 2 cal cm^{-2} min^{-1}. This value is known as the terrestrial solar constant. Heat transfer from the outside upon the Moon's surface takes place only by this radiation.

Under the influence of this source of heat the temperature of the Moon's surface at the subsolar point, i.e., during lunar noon, reaches a maximum of +140°C; after sunset it drops very quickly and reaches a low of −150°C before the next sunrise. There should be some variations in the temperature curve depending on whether one assumes a surface of compact dust or a layer of loose dust over rock. Several pertinent temperature models have been suggested recently in the literature.

Tremendous and fast temperature changes occur during the course of an eclipse of the Moon as the result of the very effective radiational cooling. In fact, E. Pettit and S. B. Nicholson observed a temperature drop from +130°C to −117°C in about one hour. Such a sudden cut-off of solar irradiance by the Earth, which, observed from the Moon, is a solar eclipse, would be a calamity for a selenonaut if he were caught outside the lunar base. Fortunately, such an event occurs, at most, only twice a year.

With increasing depths, the lunar day-night temperature curve of the soil becomes increasingly more shallow and approaches constancy below one meter. At greater depth the soil, in general, may always be frozen and, according to a theory recently advanced by Thomas Gold and based on radio soundings, there should be a layer of frozen water at a depth of about 30 meters. This "ice table," if the theory is correct, would, of course, be of tremendous ecological value for the life-support system on a Moon base.

With these subsurface thermal conditions, I have already touched upon an important ecological aspect, that is, the differentiation between the macroclimate and the microclimate.

MACRO- AND MICROCLIMATES

The large-scale conditions around and on the Moon, as they are found in the uplands, maria, and in large craters—in other words, in the "wide open spaces,"—represent the *macroclimate*. In terrestrial ecology, the concept of the *microclimate* plays an important role; it includes the bottom layer of the atmosphere up to several meters which shows specific properties caused by the relief of the surface, water bodies, and vegetation. Furthermore, it includes subsurface features such as hollows and caves and, finally, the pore spaces of the soil which are climatic habitats of microdimensions in the real sense of the word.

It might be logical to also apply the concept of the microclimate in an analysis of the Moon's environment.

The microclimates found in subsurface spaces such as those below the rims of craterlets, cliffs, rills, ridges, and in caves, might provide some thermal stability or sources of heat energy above volcanic hot spots and, in addition, a shield against meteoritic material and cosmic rays. These microclimatic niches, probably found in large numbers below the lunar surface, are the points of bioastronautical interest in the lunar space program, as far as the selection of sites for a lunar base is concerned. They might be artificially modified in such a way as to provide both protection and access to solar energy. Lunar life for terrestrials will, in all probability, be a sophisticated cave life in underground installations.

At this point, I might mention that some scientists expect to find some kind of primitive life on the Moon, maybe in the form of anaerobic microorganisms of the type that existed in the protoatmosphere of the Earth some two billion years ago, and as they are still found today in the pores of its soil. If so, only the microclimatic niches on the Moon would be the places to look for them, and only these could be considered as receptive for contamination by terrestrial microorganisms.

LUNAR GRAVITY

Finally, a few remarks concerning an ecological factor which is present everywhere and always of the same intensity on the Moon: the gravitational force. Lunar surface gravity is about 17 per cent that on Earth, or $\frac{1}{6}$ g. A man of 100 kg. mass has a weight of 100 kilopond (= kilogram weight) on Earth. On the Moon, he still has a mass of 100 kg. but he weighs only 17 kilopond. This might be sensomotorically just enough to enable him to walk. Generally, the low gravitational load might facilitate man's life on the Moon. It will certainly influence metabolic rate in the direction of a decreased metabolic turnover. (About 2,500 to 2,800 calories per day should be sufficient, which would be logistically significant.) However, one should not go too far, or better, not too low, in this respect because decreased weight and the resulting hypodynamic state might lead to a kind of general asthenia affecting the muscles and the circulatory system, as it has been observed in submersion experiments in a water tank by D. E. Graveline. To prevent such biohypodynamic effects, physical exercise, that is, lunar calisthenics, must be employed.

The low gravity on the Moon should also have some specific effect upon the blood pressure of a terrestrial visitor. On the Moon, the blood pressure in the upper part of the body when in an upright position should, according to calculations of Dr. L. Lamb, be somewhat higher and in the legs it should be lower due to the decreased hydrostatic pressure difference. Under this condition the blood pressure is more evenly distributed over the whole body. But the nervous regulatory system of the blood vessels (pressoregulators) might counteract this effect after some time. It could be imagined that because of the low hydrostatic pressure, a selenonaut can sleep in a chair just as well as a man on Earth can sleep in a bed. Be that as it may, medical consideration must be given to the lunar gravitational situation and its physiological effects and aftereffects, i.e., after a happy return to Earth.

These are the facts concerning the ecological profile of Luna, the Goddess of the Night.

If we put together the pertinent astronomical elements of the Moon in the form of an ecological or bioastronautical index, we recognize that most of the physical conditions lie, ecologically, either below the minimum or above the maximum. To create artificially, as far as possible, an ecological optimum for terrestrial Moon visitors—that is the challenge to space medicine or bioastronautics. I am convinced that space medicine will meet this challenge. ★★★

TABLE II

Ecological Index of the Moon

Atmospheric density	Less than 10^{-10} of the terrestrial atmosphere
Anoxia	at zero altitude
Ebullism	at zero altitude
Total solar irradiance	2 cal cm^{-2} min^{-1}
Surface temperature	
Lunar noon	+130°C
Lunar midnight	−140°C
Solar illuminance	140,000 lux
Albedo	0.07
Day-night cycle	27.3 days
Gravity	0.17 g
Gravisphere (radius)	60,000 km.
Zero altitude circular	
Orbital Velocity	1.68 km/sec
Velocity of escape	2.38 km/sec
Magnetic field intensity	Less than 1/400 that of the Earth
Circumlunar radiation belt	None

Brooks Air Force Base

REFERENCES

1. Alter, D.: Introduction to the Moon, Los Angeles, Griffith Observatory, 1958.
2. Baldwin, R. B.: The Face of the Moon, Chicago, University of Chicago Press, 1949.
3. Hibbs, Albert R. (ed.): Exploration of the Moon, the Planets, and Interplanetary Space, Report No. 30-1, Jet Propulsion Laboratory, California Institute of Technology, Pasadena, Calif. (April 30) 1959.
4. Felten, J. E.: The Lunar Environment, Report No. SM-36066, Missiles and Space Systems Engineering, Douglas Aircraft Company, Inc., Santa Monica Division, Santa Monica, Calif.
5. Firsoff, V. A.: Is the Moon Covered With Dust?, J. Brit. Astron. A. 69:153, 1959.
6. Gold, T.: Dust on the Moon, in Vistas in Astronautics, 2nd Annual Astron. Symposium, New York, Pergamon Press, 1959, Vol. 2, p. 261.
7. Green, J.: Geology for the Man on the Moon, New Scientist, 9:465, 1961.
8. The Geology of the Lunar Base, SID 61-358, Space Sciences Laboratory, North American Aviation, Inc. (Dec. 15) 1961.
9. Jaeger, J. C.: Subsurface Temperatures on the Moon, Nature 183:1316, 1959.
10. Kuiper, G. P.: The Environments of the Moon and the Planets, in Benson, O. O., and Strughold, H. (ed.): Physics and Medicine of the Atmosphere and Space, New York, John Wiley and Sons, Inc., 1960, Chap. 38.
11. Hagen, J. P.: Lunar and Planetary Bases, and Bensko, J.: Selenology, in Koelle, H. H. (ed.): Handbook of Astronautical Engineering, New York, McGraw-Hill Book Company, 1961, Chaps. 1.7 and 2.4.
12. Pettit, E.: Radiation Measurements on the Eclipsed Moon, Astrophysical J. 91:408, 1940. Contr. Mount Wilson Observatory 26:459, 1928.
13. Urey, H. C.: The Origin of the Moon's Surface Features, Sky and Telescope 15:108, 1956.
14. Whipple, F. L.: On the Lunar Dust Layer, in Vistas in Astronautics, 2nd Annual Astron. Symposium, New York, Pergamon Press, 1959, Vol. 2, p. 267.
15. Wilkins, H. P., and Moore, P.: The Moon, New York, The Macmillan Company, 1955.

OUR HYPNOTIC HIGHWAYS

Many of the safety devices on the highways are actually hazards to motorists, according to ophthalmologist Dr. Walter S. Atkinson. "Headlights, the rapidly repeated visual stimuli from white guard posts, prism reflectors, flashing and dazzling advertising lights and the white broken lines on the road are most disturbing and also have hypnotic effect on some drivers," he reports. It is the rapid adjustment of the eye from bright to dark, Dr. Atkinson says, which causes motorist fatigue and even a state much like hypnotism. Dr. Atkinson suggests safety authorities should: (1) Paint all guard posts black or at least make the guard rails wide enough to hide the post, (2) Replace small reflectors with a continuing strip of reflector material wherever there are guard posts, (3) Use solid yellow lines instead of broken white ones to divide the traffic lanes and a solid white line beside a yellow line to warn against passing, (4) Not allow flashing or dazzling advertising signs along highways.

Medical Problems of Space Flight

JOHN P. STAPP, COLONEL, USAF (MC)

Colonel Stapp, now assigned as deputy chief scientist, Aerospace Medical Division, Brooks Air Force Base, pioneered in research on the effects of mechanical force and windblast on the human body. He served as a volunteer for 29 rocket sled deceleration and windblast experiments, and sustained deceleration of as much as 40 times the force of gravity in the last experiment of the series in 1954. Colonel Stapp also directed the 1957 high altitude balloon flights with human subjects during which Colonel Simons set his altitude record. This paper presents medical problems of pilot selection and fitness.



DR. STAPP

THE INVENTORS OF THE AEROPLANE took for granted that man could fly, little dreaming that medical problems of pilot selection and fitness would bring about the creation of a new medical specialty of aviation medicine and aeromedical research on adapting and protecting air crews for a flight environment ever more hostile with increasing speed and altitude.

Before any vehicles for space flight could be conceived, human capabilities and requirements under anticipated conditions of space had to be investigated and formulated into design requirements. Led by Dr. Hubertus Strughold, the United States Air Force School of Aviation Medicine organized a Department of Space Medicine in 1949. In the same year, Dr. James P. Henry of the Aeromedical Laboratory of Wright-Patterson Air Force Base initiated a research program on human tolerance to accelerations of space flight, exposing human volunteers to accelerative forces on a centrifuge of durations and magnitudes that would be required to attain orbital and escape velocities. Later, rockets were used to lift sealed cabins containing mice and monkeys to altitudes of from 38 to 81 miles to observe the effects of several minutes of free fall weightlessness, while developing sealed cabin survival techniques, telemetered transmission and recording of physiological data, and parachute recovery of living animal subjects—all successfully accomplished in 1951. Successful human survival and performance in 32 hours and 10 minutes of exposure to near space conditions at 100,000 feet in a balloon-borne sealed cabin were demonstrated by Lt. Colonel David G. Simons in 1957, shortly before the first successful orbital space flight with an animal subject.

The initiation of a manned space flight program by the National Aeronautics and Space Administration suddenly intensified the effort to select, train, and physiologically adapt man for space flight, while simultaneously creating a sealed cabin and working environment for space exploration.

The National Aeronautics and Space Agency's Mercury Astronaut Program began with the objectives of (a) determining man's capabilities in space environment and in those environments to which he would be subjected in going into and returning from space, and (b) to orbit and safely recover a manned spacecraft.

Development of the spacecraft required integration of nine major systems: (1) heat protection, (2) rockets for separation and for re-entry, (3) communications, (4) attitude control, (5) environmental control, (6) electrical power, (7) explosive devices, (8) cabin equipment, and (9) landing and recovery systems. Progress has been continuous from the first capsule design, with continuous modifications with each flight.

Basic problems of manned orbital space flight were intensively investigated, including (1) automatic escape, (2) control while inserting spacecraft into orbit, (3) behavior of space systems, (4) pilot's capability in space, (5) monitoring of

From the Aerospace Medical Division, Air Force Systems Command.

Read before the Symposium on Space Medicine, 94th Annual Session, Mississippi State Medical Association, Jackson, May 9, 1962.

the pilot and spacecraft during orbital flight, (6) retro-fire and re-entry from orbit, and (7) landing and recovery at the end of a flight.

Simultaneously a program was undertaken for (1) selection, (2) training, (3) medical monitoring and flight preparation of astronauts, and (4) collection and processing of medical and physiological data from space flights—in order to accomplish and analyze results of manned space flight.

Thus, after more than ten years of space medical research, a scientific program to launch man into space was organized and has made history with its orderly progress and success.

ASTRONAUT SELECTION

The Mercury Astronaut Selection Program was first made public on Jan. 29, 1959 by Dr. Keith Glennan, chief of the National Aeronautics and Space Agency, at the annual Honors Night Banquet of the Institute of Aeronautical Sciences.

The NASA eligibility standards required: males less than 40 years of age; height below 70 inches (175 cm.); weight less than 175 pounds (75 kg.); physical examination current for jet test pilot rating; a college degree or equivalent in Aeronautical Engineering; rating as a jet test pilot with 1,500 or more hours of jet flying time.

Out of 110 pilots eligible by these standards who were interviewed in Washington, D. C., during Feb. 1959, 37 were selected for further screening. During March and April these 37 were given psychiatric, psychological, and physical examinations at the USAF Aerospace Medical Laboratories and the Base Hospital at Wright-Patterson Air Force Base, Ohio, and at the Lovelace Clinic, Albuquerque, N. Mex.

Space Crew Selection Tests, including physiological and psychological stresses comparable to those anticipated for space flight, were given to the candidates at Wright-Patterson Aerospace Medical Laboratories. Twelve of the thirty-seven candidates passed all examinations and tests. A board of experts appointed by the NASA selected seven astronauts from these twelve for the Mercury Space Flight Training Program.

EXAMINATIONS AND TESTS

In March and April of 1959, six or seven of the thirty-seven candidates per week were processed according to the following schedule:

First day: Psychiatric interview; psychological test battery, consisting of Wechsler Adult Intelligence Scale, Minnesota Multiphasic Personality Inventory, Rorschach Psychodiagnostic, Thematic Apperception, Draw-a-Person, Sentence-Completion Tests, and Bender-Gestalt Tests.

Second day: Isolation chamber; candidate alone in complete darkness and silence, continuously monitored by recording plantar skin resistance and by tape recording all remarks; collecting urine samples for steroids and catechol amines. Minimum of four hours' isolation. Debriefing.

Third day: Weightless flight; free floating 12-15 second exposures in cabin of C-131 transport during zero gravity outside-loop-dive flight configuration. Debriefing and psychomotor tests.

Fourth day: 2750th USAF Hospital, for clinical and experimental examination as follows: (a) medical history, (b) Class I Flying Physical Examination, (c) ENT consultation, (d) pulmonary function tests of vital capacity, maximum breathing capacity and timed vital capacity, (e) Master's electrocardiograph, exercise tolerance test, (f) x-ray, posterior-anterior and lateral of chest.

Fifth day: Electroencephalogram; laboratory studies of: creatinine, two-hour postprandial blood sugar, basal metabolism rate, PBI, complete blood count, ESR, hematocrit, urinalysis, stool; blood: cholesterol, total fatty acids, Alpha Beta lipoproteins; 24-hour urinary 17-ketosteroid excretion.

Sixth day: Acceleration: Head-to-foot accelerations on centrifuge, increased 1 g per 15 seconds up to 9 g or blackout, with plateau of 5 g, to study respiratory capacity; electrocardiograph, blood pressure indirectly, and respiration rate were continuously recorded; spirometer vital capacity and breathing capacity were measured at intervals; heart rate and rhythm, vascular response and timed vital capacity were noted. Anthropology: Fifty direct caliper and tape body measurements, including skin fold thickness and dimensions to determine lean-body-weight, were made on each candidate; stereophotographs were also made for contour mapping of body surface area, cross-section, diameters and circumferences, and from which body volume could be calculated. Respiration: (1) Flack Test: Subject holds breath with larynx patent against 50 mm. mercury manometer pressure for 15 seconds; immediately after releasing breath, systolic pressure change is noted—repeat five times. (2) Harvard Step Test: Subject steps up 20-inch platform each two seconds during five minutes; pulse rate change during three measurements of 30 seconds at one- and two-minute intervals following exercise—repeat three times. (3) Tilt Table Test: After three minutes of Harvard Step Test, subject reclines on tilt table, which is elevated to 65° above horizontal, with subject's head up, recording pulse and blood pressure each minute for 25 minutes; then table is

returned to horizontal and three more one-minute interval recordings are taken. (4) Cold Pressor Test: Blood pressure and pulse rate changes occurring while the subject sits with bare feet in a tub of ice water at 4°C for seven minutes (or until he voluntarily withdraws) are recorded every minute for comparison with three prior readings at one-minute intervals and three minutes of recordings after the seven-minute cold exposure. (5) Treadmill Maximum Workload Test: Subject's pulse and blood pressure changes are recorded while walking at five miles an hour on a treadmill which is started at horizontal and then elevated 1° per minute during 13 minutes, or until subject voluntarily terminates, or the operator stops the test should the heart rate exceed 180 per minute.

Seventh day: Acceleration: On the centrifuge with the subject supine, chest-to-back accelerative force increased 1 g per 15 seconds up to 8 g; with subject semi-supine, reclining at 12° above horizontal, repeat the exposure up to 12 g; electrocardiograph, respiration rate and indirect blood pressure are recorded continuously; vital capacity is taken at 5 g plateau in each position; urine noradrenaline and adrenaline output are measured. Partial Pressure Suit Test: Subject, fitted in MC-1 partial pressure suit and MA-2 pressure helmet and gloves, is denitrogenated on 100 per cent oxygen for two hours while baseline electrocardiograph, pulse rates, and indirect blood pressures are taken each five minutes; measurements continue as the subject is decompressed to 42 mm. mercury (or equivalent to 65,000 feet altitude for one hour) or until terminated by subject or monitor for physiological or mechanical failures. Bioacoustics: (1) Using earmuffs while performing a tracking test on an oscillograph, subject is exposed to (a) pure tone siren 145 decibels 20-1500 cycles per second for two minutes, and (b) broad band noise siren at 145 decibels for two minutes. (2) Seated in an equilibrium chair mounted on a vibration table, subject rights himself with a control stick as chair is tilted in two axes simultaneously in a programmed sequence, while the table vibrates at 3 cycles per second at ¼" amplitude for two minutes, then 5 cycles per second at ⅛" amplitude for two minutes, and finally 10 cycles per second at $\frac{1}{10}$" amplitude. Ability to correct spacial orientation is scored from the recording. Environment: Subject is dressed in thermistor underwear (cotton long underwear), cotton socks, leather shoes, and K2-B cotton flying suit, altogether one clo of insulation. While seated in flying type seat for two hours, the subject is constantly exposed to 130°F 20 per cent relative humidity air at 3 to 5 miles per hour air motion, unless voluntarily terminated or pulse rate exceeds 160. Measurements are taken of nude weight before and after and of clothing weight before and after, to plus or minus 10 gm.; rectal temperature and selected skin temperatures by thermocouples in thermistor underwear are recorded continuously on Brown potentiometer. Electrocardiograph and indirect blood pressure are recorded. Subject is scored on pulse rise, temperature rise, and weight loss.

The Space Crew Selection Program was not competitive, but each item was scored for a minimum qualification grade. Test items were developed and scoring standards were derived empirically from group scores of paratroopers, rangers, frog-men, and jet test pilots used as experimental subjects to evaluate the stress tests. From these results, the Space Crew Selection Program was formulated in November of 1958, from tests chosen for discriminating stress tolerance factors and for indicating psychophysiological deficiencies or deviations.

MERCURY ASTRONAUT TRAINING

An intensive training program was initiated as soon as the seven chosen astronauts reported to the Langley, Va., headquarters of the National Aeronautics and Space Administration. Authorities in their fields were called on for classroom



Figure 1. Subject wearing magnetic shoes, walking on ceiling while weightless.

instruction in basic mechanics and aerodynamics, astronomy, meteorology, astrophysics, geophysics, and space trajectories.

Space physiology was made a special subject, with lectures and dynamic testing and training on pressure suits, centrifuge simulations of rocket accelerations and re-entry drag, and the cabin environment. In all these tests, recordings of body responses were made on each astronaut for changes of electrocardiograph, blood pressure, respiration and body temperature—to serve as a base line for future reference and comparison with space flight responses.

While the McDonnell Aircraft Corporation designed and developed the Mercury Capsule systems and components, the astronauts were periodically briefed by the McDonnell engineers during visits to the factory. In addition, there were field trips to Convair Astronautics for observation and briefings on the Atlas Missile, and to subcontractors of all systems. The astronauts served as consultants throughout the development and, in addition, each was assigned a special area of the Mercury Program as a continuing responsibility. Assignments were as follows:

Malcolm S. Carpenter—Navigation and navigational aids
Leroy G. Cooper—Redstone launch vehicle
John H. Glenn—Crew space layout
Virgil I. Grissom—Automatic and manual attitude control system
Walter M. Schirra—Life support system
Alan B. Shepard—Range tracking and recovery operations
Donald K. Slayton—Atlas launch vehicle

Space flight training was accomplished with several simulators, each designed to reproduce conditions and problems of space flight control for the astronaut to experience and solve.

The basic procedures trainer consisted of a capsule mock-up with instrument panel linked to an identical panel observed at a console by the instructor. Instrument indications simulating all phases of ascent, orbit, re-entry and descent into the atmosphere could be programmed; and the astronaut practiced appropriate manual control responses, in a closed-loop computer circuit which fed them back to the instruments for continuous interaction of instruments, pilot and controls.

Attitude control training required a simulator which moved the pilot's body in response to his manual control in all three axes. A contoured couch, supported on frictionless air bearings, was equipped with air jets in three axes which were actuated by the hand control stick. The couch could be tilted up and down (pitch), waggled side to side (yaw), or rotated to the right or left (roll). The pilot tried to maintain attitude by watching a projection of a flight path over the earth through a periscope.

Weightlessness was experienced in 15-second exposures during flights in a transport plane equipped as a flying laboratory, so that operation

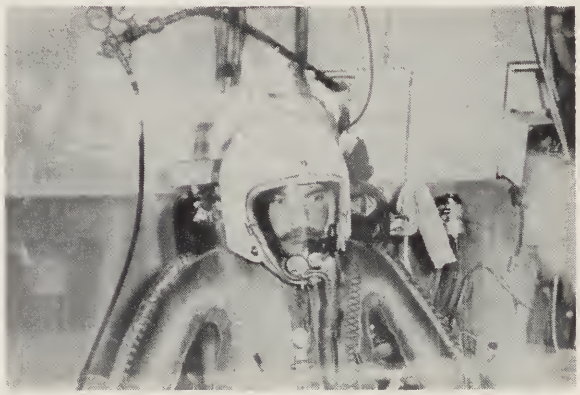


Figure 2. The MC-1 partial pressure suit test. Note suit is inflated. Subject chamber is at 65,000 feet barometric equivalent.

of simulated controls could be practiced while the aircraft flew a zero-gravity trajectory.

At Johnsville, Pa., the Navy centrifuge was equipped with a pressurized gondola containing a Mercury Capsule couch and complete instruments, to permit the pilot to experience space cabin pressures and centrifuge accelerations corresponding to space flight, while practicing manual control during simulated flight problems. Computers linked the pilot reactions to the instruments in a closed-loop circuit. For comparison, high performance aircraft were flown by the astronauts in similar maneuvers.

Mock-ups of the capsule were used for practicing entry and exit, emergency rescue after water landing, and survival training in the desert.

In addition to training with these and other simulators, the astronauts kept in top physical condition by exercise or sports of their choice, including running, swimming, scuba diving, and handball.

Finally, in preparation for a specific flight, each astronaut went through a prolonged series of checkouts in the flight capsule, to practice communications with all channels of ground control, and to master every detail of his flight.

In reviewing the training program after their flights, Astronauts Shepard, Grissom, and Glenn

confirmed the realism of flight simulation in the trainers and the benefit of conditioning to accelerations and motions of the spacecraft on the centrifuge and tri-axial motion trainers.

PREPARATION FOR FLIGHT

The same regime is followed in preparing astronauts for either suborbital or orbital flights. During the three-day period before launch, the astronaut and back-up pilot are confined to the Crew Quarters of Hangar "S" at Canaveral, to avoid contact with infectious disease carriers and to concentrate on dress rehearsals of flight preparations. Here comfortable beds, pleasant surroundings, television, radio, reading materials and privacy are provided. A low-residue dict is taken for the three days, to avoid bowel movements during flight. No drugs are used at any time.

On the evening before the flight, the pilot is encouraged to retire early; and he is awakened at about 1:00 a.m. on the morning of the flight. After ablutions, the pilot consumes fruit, steak, eggs, juice and milk; coffee is avoided for 24 hours prior to a flight, to avoid sleep inhibiting and diuretic effects.

Three days prior to the flight, a detailed physical examination for scientific data is accomplished, and on the morning of the flight a careful physical inspection for flight contraindications is done.

Astronauts and back-up pilots for all suborbital and orbital flights to date have shown normal pulse rates (60-70), blood pressures (110-120/60-70), respiration rates (12-16) and body temperatures.

FRONT VIEW SHOWING PLACEMENT OF ECG ELECTRODES



Figure 3.

Except for minor, negligible items such as bruised toe nail or skin peeling from sunburn, all physical examinations were negative and normal. A brief battery of psychological tests and short psychiatric interview given each pilot proved negative and provided a base line for postflight examinations.

The next procedure is to apply electrocardiograph sensor leads over tattooed dots at each of four electrode sites. The electrodes are taped in place to seal in the bentonite paste and maintain contact. A deep body temperature probe, consisting of a rubber-covered thermistor, is inserted in the rectum and taped in place. The helmet, with respiration sensor attached to the microphone, is donned. All leads are connected and check-out recordings made with a portable recorder.

The pressure suit is donned and the pilot is placed in a couch for a 5-pounds-per-square-inch pressure check for suit leakage. Zippers are left closed on the suit after this, and the pilot is connected to a portable ventilating unit for transfer to the van. In the van, the suit is connected to an on-board ventilating system and biosensor leads are attached to recorders for continuous monitoring until transfer to the flight capsule.

At the launch site the pilot is reconnected to the portable unit for the elevator ride up to capsule level, where the flight surgeon, pressure-suit technician, and observer-astronaut supervise insertion into the spacecraft.

After the pilot climbs in and positions himself on the couch, the pressure-suit technician attaches the ventilation hoses, the communication line, the biosensor leads, and the helmet visor seal hoses, and finally adjusts the webbing restraint harness loosely. The suit and environmental control system are purged with 100 per cent oxygen, and biosensor channels are checked as the flight surgeon inspects the astronaut before the hatch is installed and sealed.

FLIGHT OBSERVATIONS

In the two suborbital manned flights, Astronauts Shepard and Grissom made radio reports every 30 seconds on the status of on-board systems during rocket ascent. Following capsule separation from the rocket, the automatic pilot was monitored during a turn-around maneuver of the capsule, using reaction controls. A series of maneuvers were then executed in pitch, yaw, and roll using manual controls. Using the periscope or window, the astronauts then tested attitude control by visual reference to the horizon. In order to practice retro-fire and re-entry attitude, in each suborbital flight a ground count-down and re-entry drill was accomplished in which re-entry retro-rockets were fired

for 20 seconds, just as in an orbital flight. On reaching the upper atmosphere, as shown by termination of the 5-minutes-of-zero gravity of sub-orbital space flight, the spacecraft was pitched up into the re-entry attitude, and thereafter the control systems were used to offset re-entry oscillations as the space was buffeted by supersonic shock waves.

Both astronauts made approximately 90 voice communications during their less than 16-minute flights, including description of what they could see of the earth and sky through periscope or window. Observations were limited but rendered with



Figure 4. Camera study of astronaut in Mercury capsule during orbital space flight.

remarkable precision. Astronaut Grissom reported seeing shock waves during re-entry. Noise of separation rockets and retro-rockets was clearly heard, but this was not disturbing. Slight vibration was felt by both astronauts during ascent. Following re-entry, parachute deployment and descent took place with no serious impacts, and the water landing at 32 feet per second was uneventful.

Ironically, the only failure occurred after landing in Astronaut Grissom's flight, when a spontaneous firing of the side hatch caused the capsule to sink and gave the astronaut a narrow escape from drowning.

The orbital manned flights required communication with 16 ground stations spaced around the world for continuous sequence of transmissions and the combined simultaneous efforts of 19,300 people; of these, 2,600 manned the launch complex and 1,100 manned the tracking network. The ocean recovery teams totalled 15,600 people.

At launch, Colonel Glenn's spacecraft weighed 4,265 pounds, entering orbit at 2,987 pounds after jettisoning the escape tower and firing separation rockets. Recovery weight, after firing and jettisoning retro-rockets and burning off ablation-shield resin, was 2,422 pounds. Within a weight of less than 2,500 pounds had been packed (a) all the devices and equipment to contain and maintain atmospheric composition, pressure and temperature within survivable limits; (b) devices and equipment for protection from re-entry heating exceeding 3,000°F and rocket accelerations over eight times gravity during five minutes of ascent, and more than eleven times gravity during three minutes of re-entry; (c) more than 13,000 watts of electric power supply and 11 sets of communication devices; (d) rockets and hydrogen peroxide steam jets actuated to control the flight and maneuver the spacecraft; (e) electronic and photographic instrumentation to record all data and observations of the flight; (f) retarding and landing parachutes for recovery; and numerous other items. Every conceivable eventuality was provided for.

In addition to the biosensors previously described, an automatically inflated blood pressure cuff and microphone to transmit pulse sounds was added for the orbital flights.

During his historic flight, launched at 9:47:39 a.m. EST on Feb. 20, 1962, Colonel John Glenn accomplished the following planned tasks: (1) evaluation of manual, semi-automatic and automatic flight control maneuvers, including three 180° turns in yaw while in orbit; (2) evaluation of visual reference to horizon or stars for attitude control and piloting the craft; (3) evaluation of the effects of weightlessness, including head motions and eye exercises to observe disorientation or nystagmus, if any (results were negative), and the effect of exercise.

Colonel Glenn reported:

"Weightlessness was a pleasant experience. I reported I felt fine as soon as the spacecraft separated from the launch vehicle, and throughout the flight this feeling continued to be the same.

"Approximately every 30 minutes throughout the flight . . . to see if head movement in a zero-g environment produced any symptoms of nausea or vertigo, I tried first moving, then shaking my head from side to side, up and down, and tilting it from shoulder to shoulder . . . I began slowly . . . at the end of the flight I was moving as rapidly as my pressure suit would allow.

"In another test, using only eye motions, I tracked a rapidly moving spot of light generated by

my finger-tip lights. I had no problem watching the spot and once again no sensations of dizziness or nausea. A small eye chart was included on the instrument panel, with letters of varying size and a 'spoked wheel' pattern to check both general vision and any tendency toward astigmatism. No change from normal was apparent.

"An 'oculogyric test' was made in which turning rates of the spacecraft were correlated with sensations and eye movements. Results were normal. . . .

"To provide medical data on the cardiovascular system, at intervals I did an exercise which consisted of pulling on a bungee cord once a second for 30 seconds. This exercise provided a known workload to compare with previous similar tests made on the ground. The effect that it had on me during the flight was the same effect that it had on the ground—it made me tired.

"Another experiment related to possible effects of weightlessness was eating in orbit. At no time did I have any difficulty in eating. I believe any type of food can be eaten as long as it does not come apart easily or make crumbs. Prior to the flight we joked about taking along some normal food such as a ham sandwich. I think this would be practical and should be tried.

"Sitting in the spacecraft under zero-g is more pleasant than under 1 g on the ground, since you are not subject to any pressure points. I felt that I adapted very rapidly to weightlessness. I had no tendency to over-reach nor did I experience any other sign of lack of coordination, even on the first movements after separation. I found myself unconsciously taking advantage of the weightless condition, as when I would leave a camera or some other object floating in space while I attended to other matters. This was not done as a preplanned maneuver but as a spur-of-the-moment thing when another system needed my attention. . . .

"The re-entry deceleration of 7.7 g was as expected and was similar to that experienced in centrifuge runs. There had been some question as to whether our ability to tolerate acceleration might be worse because of the four and one-half hours of weightlessness, but I could note no difference between my feeling of deceleration on this flight and my training sessions in the centrifuge. . . .

"The landing deceleration was sharper than I had expected. . . . I lay quietly in the spacecraft trying to keep as cool as possible. The temperature

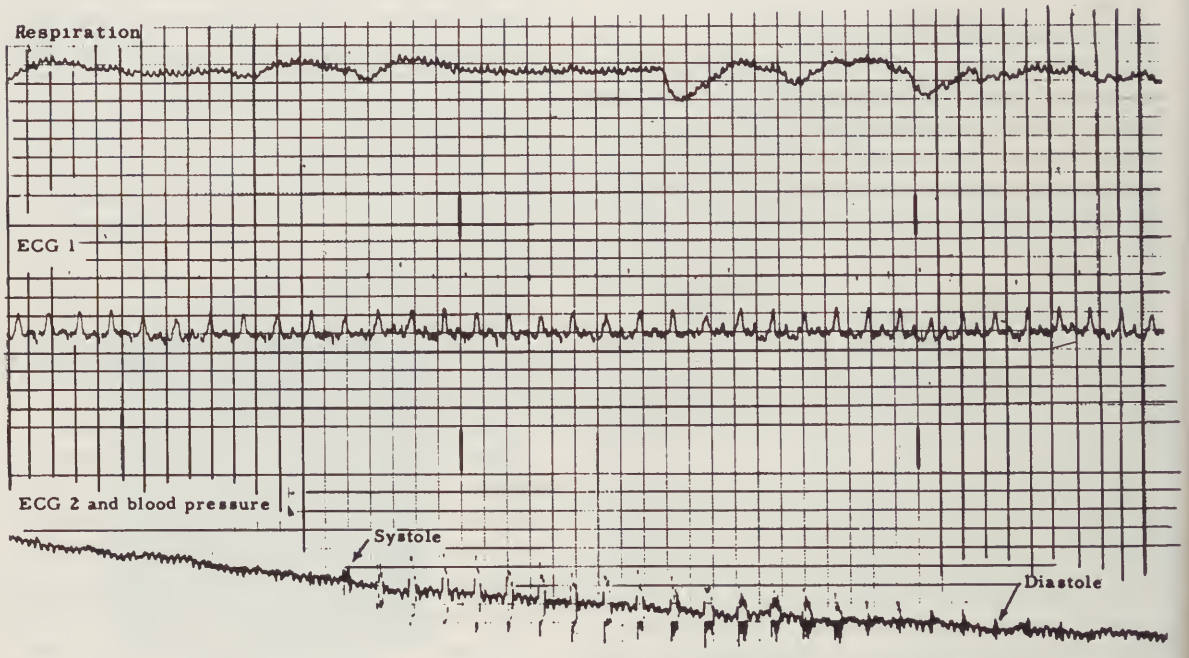


Figure 5. Sample of playback record from the onboard tape showing physiological data after 2 hours and 53 minutes of weightlessness, with inflight blood pressure trace, value of 135/64. (Recorder speed 10 mm/sec.)

TABLE I

PHYSIOLOGICAL RESPONSES IN SPACE FLIGHT

	Shepard				Grissom				Glenn			
	Temp.	*Pulse*	*Resp.*	*B. P.*	*Temp.*	*Pulse*	*Resp.*	*B. P.*	*Temp.*	*Pulse*	*Resp.*	*B. P.*
Preflight	99.0	68	16	120/78	97.8	68	12	128/75	98.2	68	14	118/78
Postflight	100.2	100	20	130/84	100.4	104	28	120/85	99.2	76	14	128/78
FLIGHT:												
Countdown	..	80	15	..	..	65	12	..	..	70	12	..
Lift-off	..	126	20	..	..	116	24	..	97.6	110	20	139/88
Spacecraft separation	..	138	40	..	..	165	..	..	..	114	12	..
Weightless 5′	..	..	..	..	..	150	..	..	..	88	10	..
Exercise 30″	..	..	..	..	..	..	..	..	..	80-124-80	..	129/76-129/74*
After 3 Hrs. 45′	..	..	..	..	..	..	..	..	..	86	15	119/60-143/81*
Retrofiring	..	..	..	..	..	171	32	..	..	96	15	..
Re-entry	..	132	30	..	..	..	..	..	..	109	20	..
Drogue deployed	..	..	..	..	..	..	..	..	..	134	20	..
Water landing	..	111	20	..	..	137	..	..	99.5	110	15	..
Flight duration	15 min. 22 sec.				15 min. 37 sec.				4 hrs. 55 min.			
Time in capsule	5 hrs. 55 min.				3 hrs. 42 min.				8 hrs. 56 min.			

* Ranges of 10 sets of measurements during weightlessness.

inside the spacecraft did not seem to diminish. This, combined with the high humidity of the air being drawn into the spacecraft, kept me uncomfortably warm and perspiring heavily. . . .

"During the spacecraft pickup, I received one good bump. It was probably the most solid jolt of the whole trip as the spacecraft swung against the side of the ship. Shortly afterwards, the spacecraft was on the deck. . . .

"Even where automatic systems are still necessary, mission reliability is tremendously increased by having the man as a back-up. The flight of Friendship 7 is a good example. This mission would almost certainly not have completed its three orbits, and might not have come back at all, if a man had not been aboard."

POSTFLIGHT EXAMINATIONS AND ANALYSIS OF FLIGHT DATA

Postflight examinations of Commander Shepard and Captain Grissom following their suborbital flights were negative and normal except for changes comparable to results of exertion in an athletic event of about the same intensity and duration. Tables I and II demonstrate a 3-pound loss of weight and a small decrease in specific gravity in the urine, and a rise in norepinephrine correlating with stress induced diuresis and transpiration into a pressure suit cooled by circulating dry oxygen. Five minutes of weightlessness produced no significant physiological effect. The accelerations experienced were no greater than those to which the subjects had been conditioned on the Johnsville Navy centrifuge. The difference in pulse rates and probable difference in blood pressures—could they have been measured—between Shepard and Grissom reflected individual differences in psychophysiological reaction to almost identical stress experiences. This conforms to the findings of Lt. Colonel Burt Rowen from similar recordings on X-15 test pilots in flight. The cardiovascular and respiratory increases in both the X-15 and Mercury flights anticipated crucial or hazardous crises of flight and were not related to degree of exertion. An astronaut comfortably secured to a moulded couch, moving his head to view the instruments and moving his hands through small ranges to actuate the controls, reacts to the antici-

TABLE II

BLOOD AND URINE CHANGES IN SPACE FLIGHT

	Shepard			Grissom			Glenn		
	Pre-flight	*Post-flight*	*Change*	*Pre-flight*	*Post-flight*	*Change*	*Pre-flight*	*Post flight*	*Change*
Nude body weight, lbs.	169¼	166¼	−3	150½	147½	−3	171 7/16	166 7/16	−5 5/16
BLOOD:									
Hematocrit %	45	40	−5	42.5	42.2	−0.3	39.5	46	+6.5
Hemoglobin, grams	13.0	13.5	+0.5	14.1	14.4	+0.3	14.1	16.1	+2.0
White blood cells/mm³	6,500	9,800	+3,300	6,500	7,200	+700	4,650	8,200	+3,550
Red blood cells, millions/mm³	5.1	5.0	−0.1	4.81	4.75	−0.06	4.96	4.82	−0.14
SERUM, mEq/L									
Sodium	137	137	0	142	140	−2	160	146	−14
Potassium	4.4	4.6	+0.2	4.1	3.5	−0.6	4.6	3.9	−0.7
Calcium	4.7	5.4	+0.7	..	..	..	4.3	4.3	0
Chloride	102	106	+4	97	95	−2	98	104	+6
Total protein serum, gm	7.4	8.3	+0.9	7.4	7.3	−0.1	6.6	6.9	+0.3
Plasma norepinephrine, micro gm/L	5.2	12.0	+6.8	5.1	16.5	+11.4	18.0	..	..
URINE									
Specific gravity	1.020	1.013	−0.007	1.020	1.011	−0.009	1.019	1.024	+0.005
Ions mEq/L									
Sodium	137	178	+41	142	70	−72	225	103	−122
Potassium	143	49	−94	35	19	−16	64	59	−5
Calcium	1.4	5.4	+4	..	..	..	11.2	3.5	−7.7
Chloride	203	87	−116	55	130	+75	223	100	−123

pation of lift-off from the launching pad with cardiovascular and respiratory increases comparable to those of the very severe exercise. An inherently low degree of response is advantageous. It is possible that stress response can be conditioned by repeated progressive exposure.

In contrast with these reactions to a brief suborbital flight are the changes observed in Astronaut Glenn in almost five hours of orbital flight, including the unusual stress of re-entry with the retrorocket package kept in place because of a signal indicating that the capsule might lose its protecting heat shield. At no time did Colonel Glenn's pulse rate rise higher than 141. This compares with his exercise pulse rate during weightlessness of 124 (see Table I). A degree of stress response that alerts and prepares the body for quick efficient response is advantageous. Over-reactivity, allowing psychophysiological commotion to interfere with appropriate and successful response and on a long-term basis to consume energy and increase fatigue, is disadvantageous.

Experience of the three Mercury astronaut flights bears out the appropriateness of stress selection tests and the value of psychophysiological conditioning on simulators such as the Johnsville centrifuge. In a large measure, the duration of future manned space flights will depend on adaptability of the pilot to stress in order to conserve his energy and endurance for the physical and mental demands of the flight. The inherently psychophysiologically unstable individuals will function at too great a cost in internal waste motion of circulation and respiration to sustain effectiveness in meeting the demands of the flight.

Careful selection and training of space pilots will continue to be the paramount medical problems of space flight. ★★★

Brooks Air Force Base

REFERENCES

1. Proceedings of a Conference on Results of the First U. S. Manned Suborbital Space Flight, June 6, 1961, Washington, D. C.
2. Results of the Second U. S. Manned Suborbital Space Flight, July 21, 1961, NASA Manned Spacecraft Center.
3. Results of the First U. S. Manned Orbital Space Flight, Feb. 20, 1962, NASA Manned Spacecraft Center.

Use of Personalized Radio Telemetry Techniques For Physiological Monitoring in Aerospace Flight

DAVID G. SIMONS, LT. COLONEL, USAF (MC)
Brooks Air Force Base, Texas

MODERN TECHNOLOGY HAS developed to the point that it is now possible to transmit multiple physiological bioelectric measures by radio telemetry techniques. Miniaturization now permits the transmission of six or more frequency modulation (FM) channels simultaneously from a unit the size of two cigarette packages. The batteries required to operate the transmitting system over several hundred feet for 24 hours require no more space than another cigarette package (king-size). This newly available electronic equipment permits physiological measurements in operational situations and under stress conditions which previously prohibited or severely restricted physiological monitoring. This new capability promises to open new chapters in performance physiology and aerospace medicine.

Recently General Bernard Schriever, commander of USAF Systems Command, described the mission of man in space as follows: "But while satellite-borne instruments can gather a variety of information, they are no substitute for the unique abilities of man to observe, to make judgments, and, most important, to exercise control based on these judgments."[1] For crew members to meet these performance criteria, their central nervous systems must be functioning at peak effectiveness. These activities described by General Schriever are ones that only man can perform, activities beyond the capability of computers and "black boxes." These are the tasks which constitute man's primary military reason for being in space. It is of fundamental importance to have available a means of monitoring whether or not an astronaut's central nervous system is functioning in a manner that will permit him to meet these responsibilities. It is of interest to note that once the physiological data have been encoded on an appropriate frequency modulated carrier, it is just as easy to send them by telephone as it is to transmit them by radio. In the radio frequency form, the physiological information can be relayed great distances by high powered transmitters in the same manner as voice or other types of information.

The newly developed technique of transmitting physiological parameters by radio telemetry directly from an individual wearing a low power miniature transmitter offers a number of advantages compared to the classical "wired into

Best known for his Aug. 19, 1957, "Man-high" flight to the edge of space in a three million cubic foot balloon, Colonel Simons is presently assigned as chief of Biocommunications, Department of Astronautics, Air Force School of Aerospace Medicine. His current research programs include studies of bioelectric measures used to monitor the psycho-physiological condition of astronauts in space. This paper presents original findings on the radio telemetry techniques used to transmit these measures.



DR. SIMONS

From the Physiology Branch, School of Aerospace Medicine.

Read before the Symposium on Space Medicine, 94th Annual Session, Mississippi State Medical Association, Jackson, May 9, 1962.

The views and the opinions expressed in this manuscript in no way constitute a statement of official Air Force policy.

place" techniques. The first and most obvious is the elimination of any physical connection to recording apparatus. This permits complete freedom of motion of the monitored individual. Not so obvious, but in some ways more important, radio telemetry greatly facilitates the rejection of electrical interference. This becomes critically important when measuring weak signals such as electroencephalograms. When one attempts to measure multiple physiological phenomena requiring body contact electrodes (EEG, ECG, and EDR—electro dermal responses), they are prone to interfere with each other electrically. Again, the principles of personalized radio telemetry provide means of handling each parameter so that they become electrically independent at frequencies of physiological concern. Obviously, these advantages apply to medical monitoring of patients as well as to aerospace flight.

How can we make use of these potential advantages of personalized radio telemetry? If human performance is of primary concern in aerospace flight, we must look for ways of monitoring the functional state of the central nervous system.[2] Fortunately, there are a number of measures available on the surface of the body which are strongly influenced by the central nervous system. They can be converted to electrical signals and telemetered. Some are more directly concerned with conscious voluntary activity, while others are more closely related to subconscious autonomic activity.

Table I presents a list of physiological measures which can be sensed and transmitted using personalized telemetry techniques. One exception, blood pressure sensing equipment, has not yet been sufficiently miniaturized to be included. The list is arranged according to whether the parameter is predominantly related to voluntary or autonomic central nervous system activity. To

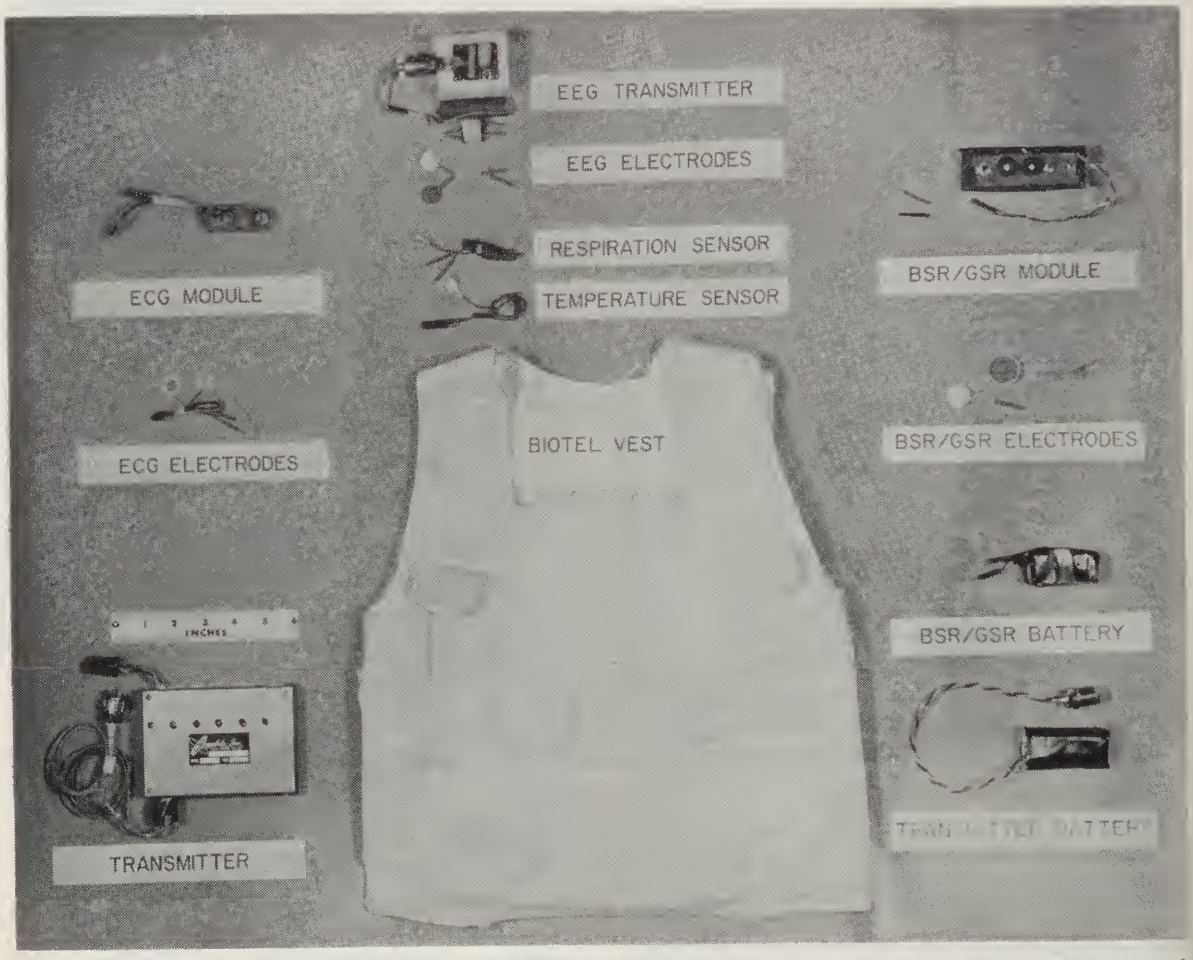


Figure 1. Miniaturized telemetry equipment employed to transmit six channels of physiological data simultaneously.

date, we have not attempted to incorporate eye motion and EMG in the telemetry system. The other measures will be discussed individually.

TABLE I

PREDOMINANT CNS FUNCTION REFLECTED BY CERTAIN PHYSIOLOGICAL PARAMETERS

Voluntary	*Mixed*	*Autonomic*
EEG	Respiration	ECG
Eye Motion		BP
EMG		EDR*
		Body Temperature

* Electro Dermal Responses (Galvanic Skin Reflexes and Basal Skin Resistance). Physiological parameters of immediate interest for the monitoring of physiological changes related to central nervous system arousal and responsiveness.

We are using a personalized telemetry system to learn how to derive from the surface of the body information concerning the functional state of the central nervous system. The following features are considered essential for an effective psychophysiological monitoring system:

1. Negligible encumbrance to the monitored individual
2. Uninterrupted data transmission and recording
3. Continuous operation of subject-mounted equipment through 24 hours unattended
4. Transmission of noise and artifact-free data
5. Continuous real-time analysis
6. Experience with its use in operational situations

Each parameter presents individual problems with regard to this list.

The multichannel radio telemetry unit presently employed was originally manufactured by Spacelabs, Inc. more than a year ago and since then, has been considerably modified by electronic engineers of the Bioelectronics Branch of the School of Aerospace Medicine.[3] This original design has also been superseded by the manufacturer. This modified transmitter carries the five physiological parameters other than EEG. EEG is handled by a separate miniaturized single stage FM transmitter developed by Wesley Prather of the School of Aerospace Medicine Bioelectronics Branch. All components of the transmitter are illustrated in Figure 1. Figure 2 shows an individual wearing the telemetry system. The six channel FM/FM transmitter weighs 350 gm. The battery pack which operates it for a full 24 hours is half as large, uses two Mercury cells and weighs 145 gm. Two additional signal conditioning modules are required for the channels now used. One is a preamplifier for ECG and the other is a signal conditioner for BSR/GSR (basal skin resistance/galvanic skin reflexes). This transmitter is now arranged to transmit ECG, BSR, GSR, respiration, and temperature. The separate EEG transmitter is mounted directly on the subject's head.

The total transmission-reception system is presented schematically in Figure 3. The transmitters operate over a range of several hundred feet. The receiver picks up the complex FM/FM radio frequency signal and feeds it to the modulators for reconstitution of the original physiological data as encoded by the transmitter. Each channel is processed separately so that the information may then be further analyzed or the raw data recorded on an oscillograph or tape recorder.

Of the parameters transmitted, EEG is the most susceptible to electrical interference because of the large amplification required. The signal level at the scalp ranges between approximately 10 and 100 microvolts. This requires some 50 times more amplification than that required for an electrocardiogram. Those who have experienced the annoying 60 cycle hum so frequently obtained with portable electrocardiograph machines can appreciate the nature of the problem when this interference is multiplied by a factor of 50. This happens when recording EEG using conventional "direct-wired" recording techniques. The fact that the common mode rejection provided by telemetry techniques makes an enormous difference was clearly illustrated in recent simulator studies conducted jointly with the Military Air Transport System at Dover Air Force Base. The simulators are operated throughout by 60 cycle current, and therefore have associated with them unusually intense 60 cycle fields. Attempts to record clean electrocardiograms with conventional recording equipment beside the simulator were consistently unsuccessful. The best compromise obtainable lay between a delicately adjusted ground arrangement and a 60 cycle interference level that barely permitted the R waves to peep through the hum. At no time, throughout four continuous 24 hour runs in these simulators, was serious difficulty experienced with 60 cycle interference through the EEG transmitter. It is likely that medical science will make increasing use of telemetered electroencephalograms and possible telemetered electrocardiograms just because of their inherent freedom from local electrical interference.

It is obvious that the transmitter can send out data of no better quality than it receives from the sensing electrodes. The construction and application of electrodes for the measurement of EEG is particularly critical because of the large amplification required. The transmitter cannot distinguish between the EEG signal and noise com-

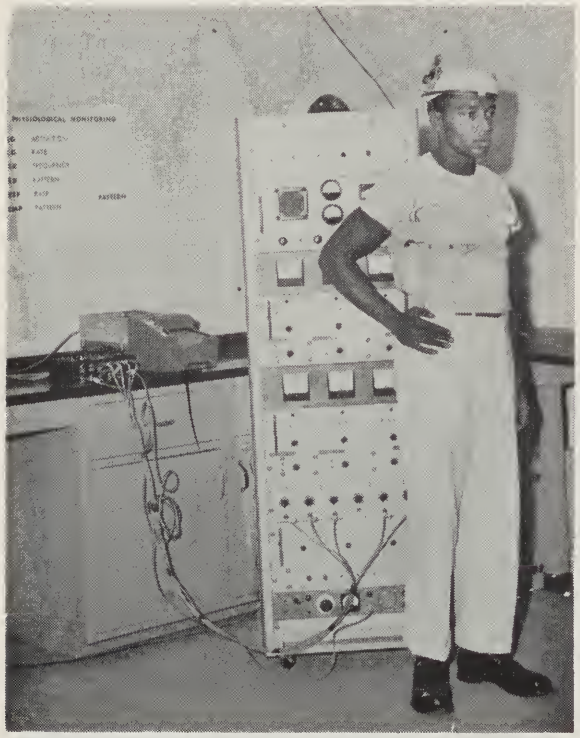


Figure 2. The six channel "Biotel" radio telemetry transmitter is located in the instrumentation vest pocket under the subject's right arm. The separate EEG transmitter protrudes from the headpiece above his right ear. The telemetry receiver-discriminator rack is behind him. The 14 channel oscillograph recorder is on the bench.

ing from potentials produced by the skin itself (electrodermal responses), from the underlying muscles, from voltages generated by the electrodes, from voltages generated between the electrodes and the skin, or from an unbalanced extraneous electric field.

Most of the noise from these sources is minimized or eliminated by a low resistance electrode firmly attached to the scalp. A technique using small cup electrodes applied with Eastman 910 adhesive over a site where the dead squamous epithelium has been removed by a dental burr appears very promising.

Since the two electrodermal responses, BSR and GSR, which we are measuring are derived from activity of the sympathetic nervous system, they are of particular psychophysiological interest. Here the problem is not one of noise introduced prior to a large amplification factor, but rather artifacts generated by changes in resistance between the electrode and the skin. Basal skin resistance also requires that absolute direct current values be transmitted. With the transmitting equipment used to date, transmitter temperature instability has made this difficult. More recently designed transmitters are free of this problem. The design of artifact-free electrodes which will operate satisfactorily through a 24-hour period required a major development effort of our group. The cup arrangement illustrated in Figure 4 has performed satisfactorily.

A cross-sectional view of this circular electrode is shown in Figure 5. The plexiglass case forms a cup into which a silver disc is cemented. Care must be taken to ensure that the electrolyte is unable to seep around to the junction of the silver disc and the contact wire soldered to the back of the disc, as this would introduce a battery potential. The disc is anodized with silver chloride to provide a silver-silver chloride electrode. The cup is then filled slightly less than full with electrolyte. Eastman 910 adhesive is used to attach the rim of this electrode to skin which has been scrupulously cleaned. When reinforced with adhesive tape applied to skin prepared with tincture of benzoin, this electrode arrangement has remained artifact-free through 24 hours. This consistently functions well for such long periods on protected sites such as the arm. This electrode is similar in principle to that used in the Project Mercury program.[4]

Some questions still remain concerning the change in skin resistance produced by the fact that the skin is wet continuously through a 24-hour period. Evidence indicates the resistance values measured are influenced by the continued hydration of the skin, but the degree of this effect must be clarified.

When transmitting the electrocardiogram, the basic electrode techniques which proved satisfactory for EEG are applicable. The cup electrode again eliminates electrode noise but only careful selection of the electrode site eliminates muscle potential interference. We customarily transmit five physiological measures through the Biotel transmitter. The electrocardiogram requires the most amplification of the five. The system was designed so that one terminal is common to every pair of body electrodes. For this reason, electrode

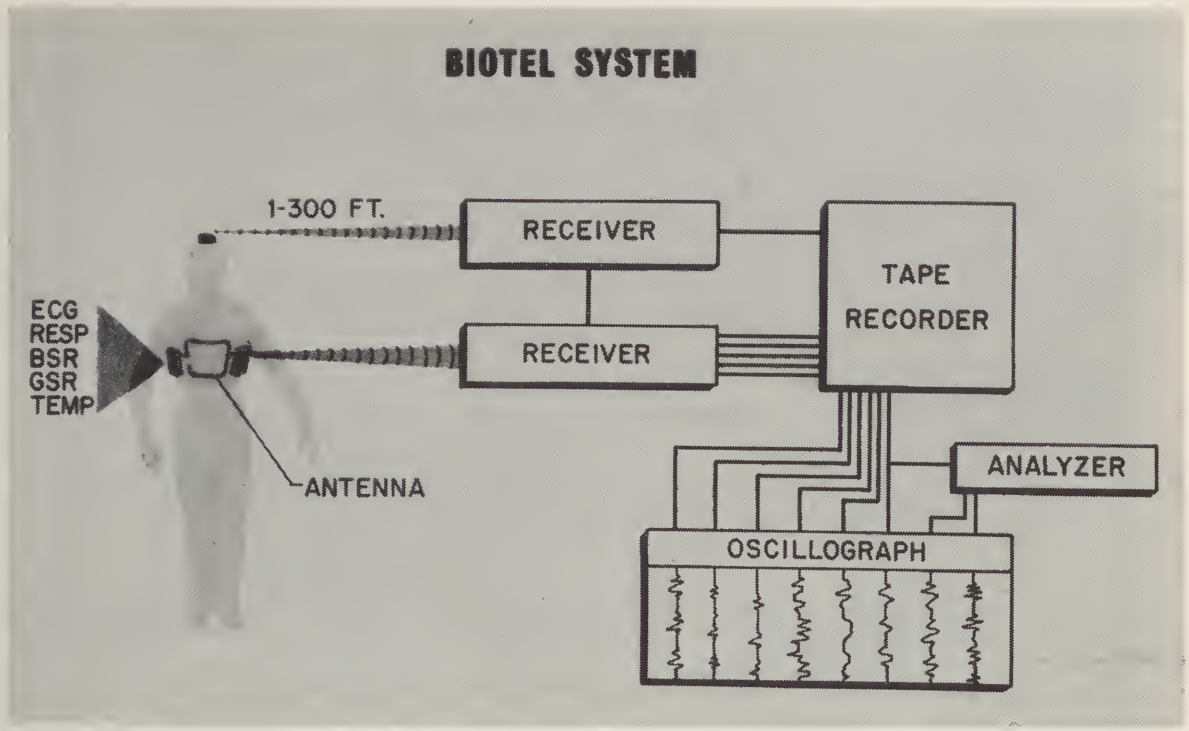


Figure 3. Schematic of complete personalized radio telemetry system including transmitters, receivers, demodulators, (subcarrier discriminators), tape recorder, and final data analysis and write-out.

noise from other sources (such as EDR electrodes) are greatly magnified through the ECG amplifier sometimes rendering the ECG unreadable. This problem was eliminated in the case of the electroencephalogram by using a separate transmitter. The use of a balanced ECG amplifier designed to reject this kind of "cross talk" among electrodes has recently proven effective. Improving electrode attachment techniques to reduce the occurrence of insecurely attached BSR/GSR electrodes has also helped greatly.

We cannot expect monitored aerospace crew members always to wear a mask just so we can measure respiration quantitatively after we have gone to so much trouble to free them from encumbrance by using personalized telemetry techniques. The mask arrangement does permit simple accurate respiration measurement. In the past, respiration has been measured without masks by placing a stretch-sensing band around the chest or a temperature sensing element in the airstream of the nostril. The former neglects the respiratory contribution of the diaphragm plus introducing mechanical inconveniences and difficulties. The temperature of the latter depends, among other things, upon the relative ventilation between the two nostrils and upon its position in the airstream of the nostril. Both of these are difficult to control. Recently, the feasibility of measuring respiration by the impedance plethysmogram technique using only two chest electrodes has been successfully demonstrated. Even if this proves no more quantitative than the other two methods, it is less troublesome to the subject to have two chest electrodes than to be encumbered with additional mechanical devices. It may be possible to obtain



Figure 4. BSR/GSR cup electrodes.

the quantitative volume data so strongly desired by psychophysiologists and physiologists alike. The fact that the electrocardiogram can be picked up simultaneously by the two pneumogram electrodes offers an additional advantage.

Blood pressure would be a valuable telemetered parameter from a psychophysiological point of view. Here is a measure that is readily obtained in office practice but has proven refractory to sufficient miniaturization to be suitable for personalized telemetry techniques. On the other hand, a close relative of blood pressure, pulse

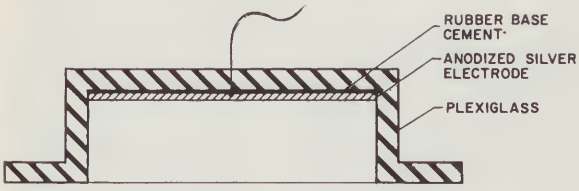


Figure 5. Schematic of BSR/GSR cup electrode arrangement.

wave velocity, promises to be obtainable rather simply by electronic measurement techniques, but is clinically a relatively unknown quantity. If it proves of psychophysiological significance, it may become a measurement of choice because it is obtainable.

The real time analysis of these telemetered physiological data is a subject worthy of a separate paper. To date, ECG and respiration data have been analyzed in terms of event by event values of rate. This continuous record of changes in rate reveals most interesting patterns relatable to the subject's physiological condition and simulated flight situation.

Patterns of physiological responses observable using these techniques are demonstrated in Figures 6 and 7. These two records were obtained on an individual during sleep and wakefulness, respectively. During sleep, heart rate shows a slight, but regular rhythmic change directly related to respiration characteristic of sinus arrhythmia. At one point, this regular rhythmical variations of heart rate is interrupted by a marked smooth increase in rate suggestive of a CNS reflex. It is interesting to note that at the same time there is an interruption of the even respiratory pattern. Whenever these changes in pattern occur, during sleep there is frequently GSR activity accompanied by motion of the subject.

Figure 7 presents the corresponding physiological picture when the same subject was freely browsing around the laboratory the following morning. The respiration pattern divides into three distinct patterns. The first half minute of the three minute record shows a slow regular respiraatory pattern. The next minute is characterized by rapid irregular breathing, and the last minute by less rapid, but regular respiration. The galvanic skin reflex record shows a few small reflexes during the first 30 seconds with an abrupt change to frequent large GSR's during the following minute.

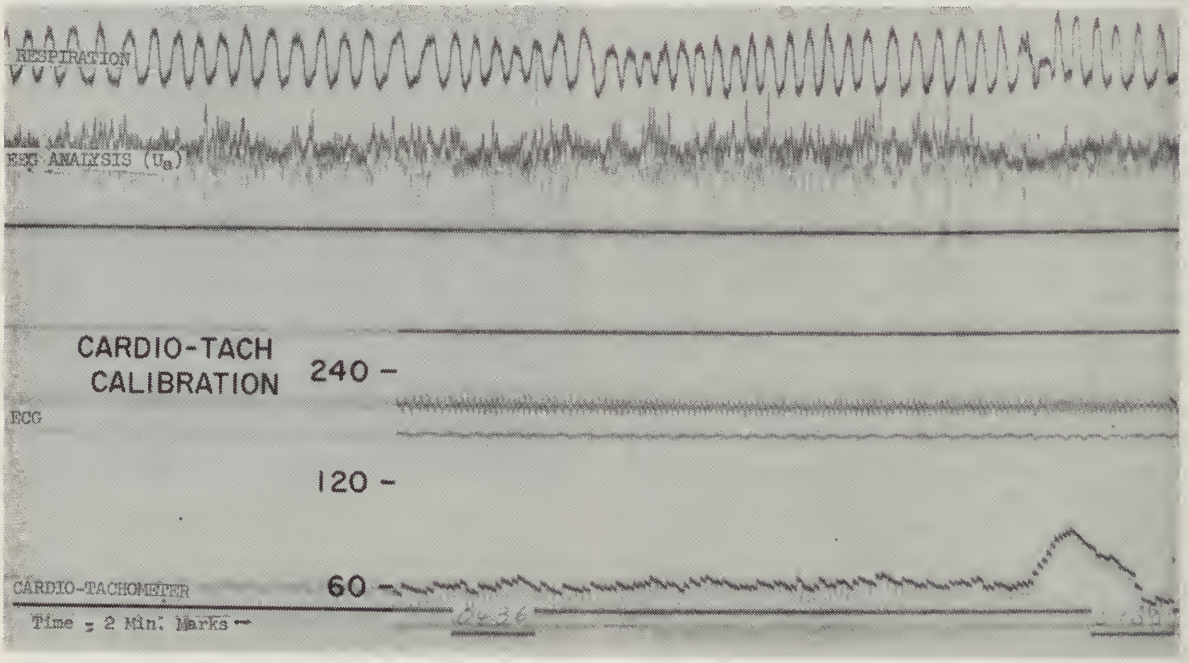


Figure 6. Biotel record during sleep showing typical nonrespiration coupled reflex change in heart rate at 0438. The disruption of the respiratory pattern at the same time is also evident.

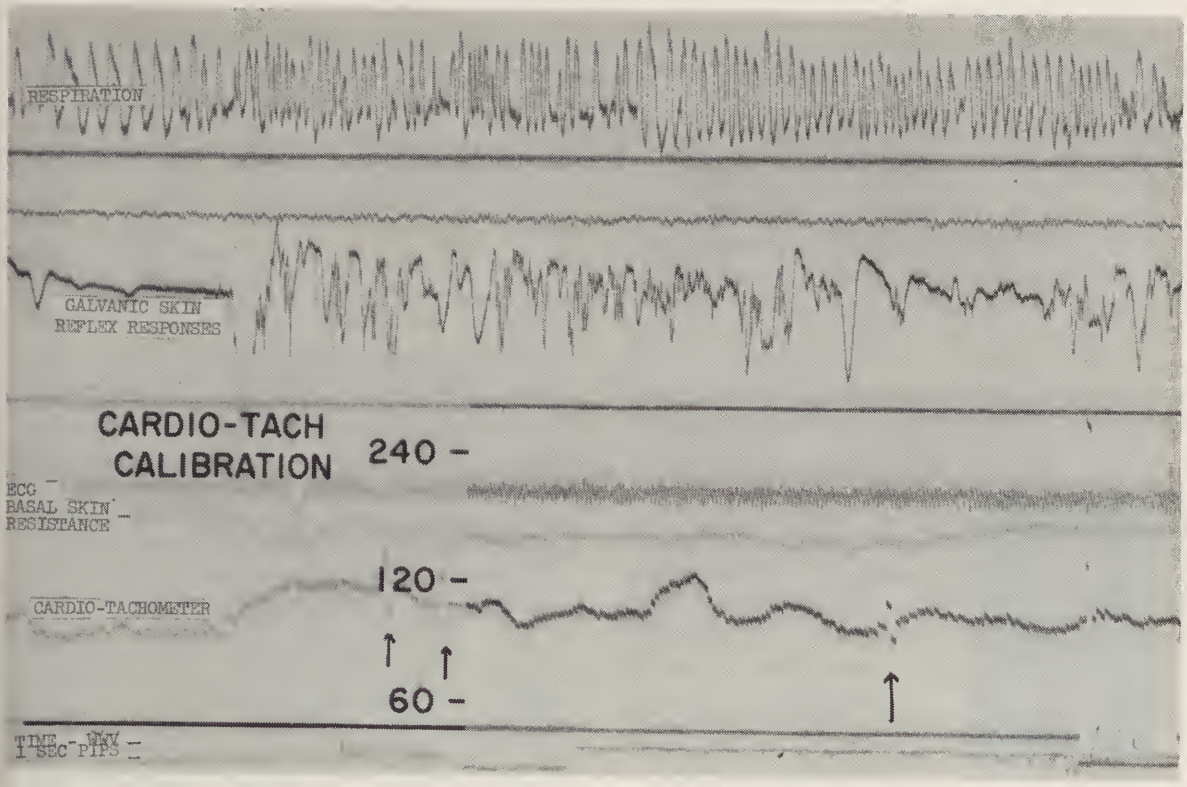


Figure 7. Biotel record of same subject as Figure 6 observed the following morning at 1004. The three distinct patterns observed in the respiratory tract show distinct counterparts in GSR, BSR, and heart rate.

The final minute was marked by a reduction in frequency of GSR activity. The abrupt drop in the basal skin resistance with the onset of rapid irregular respiration slowly recovers during the final minute of regular, more rapid, respiration. The first 30 seconds of heart rate analysis shows a strong coupling to respiration (sinus arrhythmia). The remainder of the record suggests a superimposed series of events similar to the one illustrated during the last 30 seconds of Figure 6. The fact that this cardio-accelerator reflex characteristically occurs with a change in respiration, and with GSR activity suggests that at times it may mark an orienting reflex as described by Pavlov. It is also referred to as the investigatory reflex of the central nervous system. It is also of interest to note the occasional PVC's marked by vertical arrows on this record. These were rarely observed during sleep.

The concurrent real time analysis of EEG is an important part of this monitoring system. The activation response is used for quantitatively assessing central nervous system arousal using the technique described by Riehl.[5] Frequency analysis methods of Burch[6] appear equally promising.

Effort to date has approached operational situations to the extent that we have monitored pilots through continuous 24 hour "flights" in aircraft simulators. This study is being conducted jointly with personnel of the Military Air Transport System, Dover AFB, Del., and the School of Aerospace Medicine. In order to learn more of the changes in pilots' reactions during prolonged MATS flights, the responses of four MATS pilots were recorded through 24-hour "flights." Two pilots operated the C-133 simulator and two pilots operated the C-124 simulator. Six channels of performance measures and six channels of physiological measures were included on a 14 channel precision magnetic tape recorder. The physiological measures telemetered included EEG, ECG, BSR, GSR, respiration and skin temperature. The simultaneous recording of all channels of raw physiological data is of fundamental importance in permitting subsequent exploration of different analysis techniques and the possibility of cross-correlating various channels of information as flight time progresses.

It is too soon to say whether this approach will permit objective identification physiologically of the fact that when a fatigued individual is congratulating himself on his superior performance,

he has reached a state of seriously degraded judgment.

It is clear that radio telemetry provides a means for obtaining physiological data of a type, and in situations where it was previously unobtainable. It is also clear that tape recording these data provides opportunities for exploring analysis techniques that were previously impossible, or at best, extremely awkward and time consuming. The use of computer analysis techniques for processing these data in real time will make available a type of information that may have considerable usefulness in the monitoring of crew members during aerospace flight. Eventually it is conceivable that these techniques may be modified to assist physicians in monitoring critically ill patients. They may be of value in diagnosis, particularly for those conditions concerned with changes in emotionality and physiological responses to emotion. ★★★

Brooks Air Force Base

The author wishes to acknowledge gratefully the efforts of Wesley Prather in modifying and maintaining the telemetry equipment. Dr. Neil Burch and Dr. Robert Edelberg initially suggested the cup electrodes for measuring BSR/GSR. Dr. William Rickles and Jack Day were largely responsible for working out their structural details and successful application on 24-hour experiments.

REFERENCES

1. Schriever, B. A.: Address to the ARS Space Flight Report to the Nation, Washington, D. C., October, 1961.
2. Simons, D. G.; Flinn, D. E.; and Hartman, B.: Unusual Environments and Human Behavior, in Burns, N. M., and Chambers, R. M.: Psychophysiology of High Altitude Experience, New York, The Free Press, to be published.
3. School of Aerospace Medicine Report: To be published.
4. Henry, J. P., and Wheelwright, C. D.: Bioinstrumentation in MR-3 Flight, Proceedings of a Conference on Results of the First U. S. Manned Suborbital Space Flight, NASA, June 6, 1961.
5. Riehl, J. L.: Analog Analysis of EEG Activity, Aerospace Med. 32:1101-1108 (Dec.) 1961.
6. Burch, N. R., and Childers, H. E.: Psychophysiological Aspects of Space Flight, in Flaherty, B. E.: Physiological Data Acquisition, New York, Columbia University Press, 1961, pp. 195-211.

RUSSIAN ROULETTE: RED YOU WIN

Insider investigations have turned up some big holes in the Russian scientific system—which has long been lauded for the way it milks foreign scientific reports. Study of what happens to the several hundred Western scientific journals which are copied and sent to labs and libraries throughout the Soviet Union shows that bureaucratic censors determine what the Russian researchers are allowed to learn. Of 28 recent issues of *Nature,* a British science journal, 18 were censored with a whimsical pencil. For instance, all discussions of fallout from Russian bomb tests were removed —and so was mention that it was Marconi who first sent radio signals across the Atlantic Ocean, the biography of a British chemist named Smithson Tennant who worked on the chemical osmium and died in 1815, and a passing remark about how many scientific journals are available in Viet Nam.

Space: A Shield for Peace

JOHN C. STENNIS, U.S.S.
DeKalb, Mississippi, and Washington, D. C.

NEVER BEFORE IN HISTORY, within one generation, has man's technological progress outdistanced so much of his experience. More scientific advance has occurred within the lifetime of a 15-year-old boy than in the previous fifteen hundred years. For 99 per cent of the time man has been on earth no one ever traveled faster than a horse. Yet, within one lifetime, man went from horse and buggy to the space age.

If the destiny of the medical profession is to keep pace with this fantastic march of science, physicians must begin now to consider the transcending problem that will one day beset them, namely, making a "night call" in space. Whether today's physicians will be by-passed by progress at 40 or be pioneers of progress at 70, depends on their reaction to the challenge of change, the great challenge we are all facing today in our shrinking world as we boldly enter the space age.

The founders of the Mississippi State Medical Association, 106 years ago, could hardly have dreamed that we would be meeting here today to discuss the role of the medical profession in achieving one of our national goals—Man in Space. It is a matter of great pride to me that Mississippi is in the forefront of recognizing the indispensable contribution of medicine to our space program. Man is the key to exploration of outer space. Ways must be found to keep him alert, active, healthy, and alive in outer space for days, weeks, and perhaps months.

The field of aeromedicine or life support is one of the most important and challenging of our space programs. We cannot forget that the proper coordination of the human with the complex machines he must operate, and even his ability to survive in his space environment, is basic to the success of manned space missions. And this is but one of the problems. The search for additional knowledge and information about the problems of man in outer space, and the space program itself, is precisely why the Mississippi State Medical Association is sponsoring this Space Medicine Symposium.

At the present time, no one has a mastery of space. We must remember the lessons of the past and not allow the Soviets or any other nation to gain a superior capability in space which may later be used against us. We can either explore and develop outer space or stand idly by and watch others do. We have made the choice. For our own protection and that of the free world, we have decided to push ahead. We must continue in our determination to explore and exploit space for peaceful purposes and for the benefit of all mankind. Equally, we must seek means to use space to protect the peace and strengthen our national security.

Senator Stennis, who has represented Mississippi in the U. S. Senate since 1947, serves as a member of the Senate Committee on Aeronautical and Space Sciences, which has jurisdiction over all activities and programs administered by the National Aeronautics and Space Administration and passes on all authorizations for the entire space program. He is also chairman of the Senate Subcommittee on Military Preparedness. The Senator's son, the Honorable John H. Stennis of Jackson, read his father's paper before the Symposium as the Senator was unavoidably detained in Washington for the cloture vote on the administration's literacy test bill.



SENATOR STENNIS

United States Senator from Mississippi.

Read by the Honorable John H. Stennis before the Symposium on Space Medicine, 94th Annual Session, Mississippi State Medical Association, Jackson, May 9, 1962.

From the outset, I have actively supported the development of our space program. As a member of the Senate Space Committee, it was my privilege to serve as chairman of the subcommittee on the first authorization of the civilian space program of the National Aeronautics and Space Administration. These hearings led to passage of the bill which authorized the Mercury Program and the three orbit mission of Colonel John Glenn.

As a result of these hearings, we learned of the tremendous potential for the peaceful uses of space research. We learned that satellites could be used for a global system of communications. We learned they could be used to improve navigation so that ships and planes could calculate precisely their location, night or day and in all kinds of weather. We learned that weather satellites could predict storms so that measures could be taken to save lives and prevent property damage. We found that the benefits to mankind justified our space program, aside from the military potentials.

Space vehicles can be used to police the skies, sending their TV pictures and reports back to earth to warn against impending hostilities. Thus they may serve as a deterrent to a surprise attack by the enemy. It is possible that space platforms may be orbited from which missiles can be launched on command from command posts on the ground. In addition, there are a great many other military possibilities which may be developed.

SPACE PROGRAM

We have moved vigorously ahead to increase our scientific knowledge and develop our space program, both for peaceful and military purposes. In the short space of three years since our authorization hearings were held, we have made remarkable progress. We have developed more powerful rocket boosters, including the Saturn, a cluster of small boosters having a combined thrust of a million and a half pounds, greater than any booster possessed by the Soviets.

We have launched meteorological satellites. We have orbited satellites for communication, others to obtain cloud and radiation data, and still another to transmit TV pictures for weather prediction, sending the information not only to stations in this country but also to international communications circuits. We launched another satellite which traveled more than 22½ million miles out into the atmosphere, all the while transmitting radio signals back to earth, marking the first time radio signals had been received from the vicinity of other planets.

Last year, two of our astronauts made suborbital flights. Less than three months ago, while millions watched on television, John Glenn made our first manned orbital flight, circling the earth three times at a speed of 17,545 miles per hour. In recent weeks, we have launched an orbiting solar observatory which will permit a closer look at other planets unhampered by the earth's atmosphere. We have launched a satellite which hit the moon. On April 24, the Air Force from a base in California sent television pictures 1,000 miles into the air to an Echo balloon satellite orbited two years earlier, bounced them back to earth more than 2,700 miles cross-country, and the pictures were clearly seen on television in Massachusetts.

And this is just the beginning. Just last week, the House of Representatives by an overwhelming vote adopted a bill setting up a private corporation to own and operate communication satellites to receive telephone and television signals from earth and transmit them instantly to a telephone or television set anywhere in the world—truly an instantaneous world-wide communications system. The Senate will pass the bill in the very near future.

Further, we expect to have at least four more manned orbital flights this year, including one which will circle the globe 18 times during a 24-hour period. We are planning a two man orbital flight soon thereafter. Within a few short years, we are confident that we can land three men on the moon and return them to earth safely.

But, let us remember that to "land a man on the moon" is not the primary object. By landing a man on the moon we will master space, and, I believe, establish a supremacy in space. In my opinion, a sense of urgency should exist across the whole front of our space projects, with its tremendous potential to all humanity. Space can be used for good or for evil, for peace or for war. Our mastery of the mysteries of outer space is our shield for peace.

COST OF EXPLORATION

Needless to say, our space efforts cost money. The space activities of the United States cost our nation $347.5 million in fiscal year 1958. The space budget is expected to reach $3.8 billion for the coming fiscal year. This is the budget required to back up our policy and programs for outer space exploration. Everyone realizes that this is a heavy burden. But although we may be staggered

by the astronomical cost, we must realize that the money we are spending for space technology is an investment which is already yielding practical results and promises still more for the future.

Aside from the direct benefits in our space progress, we must remember that practically the entire space budget is being spent in the United States, and will result in new industries and increased employment. In fact, these by-products should help pay for the program as we move into more costly space ventures. There are approximately 5,500 firms in the United States producing more than 3,500 articles needed in the space program. Space exploration is rapidly becoming big business in itself and will become the largest industrial spur in the nation before too long. Space activities require the teamwork of many people, working in many different places.

MISSISSIPPI'S ROLE

We are all proud that Mississippi is to have a key role in creating the big booster system we must have for a position of leadership in the space age. The Mississippi Test Facility for the powerful, new 30 million horsepower Saturn rockets will be built in Hancock and Pearl River counties. There, the tremendous advanced boosters will receive their static test firings. Missisippi will be a strong link in a chained effort directed toward manned spaceflight.

The great rockets which are to be constructed in the Michoud, La., plant will be moved by barge to our test facility. And from Mississippi they will go to Cape Canaveral to launch spacecraft into orbit and beyond. This vast technological enterprise is another indispensable part of our space program.

Of course, it is impossible at this stage to make an accurate estimate of the impact of this rocket testing facility on the economy of our state. I believe it will be tremendous. The physical plant, itself, scheduled for completion in July 1964, will cost more than $200 million. The actual test operations will be conducted by private contractors who will employ more than 1,500 scientists, engineers, technicians, and skilled and semi-skilled workers. In addition, there will be a limited number of government employees who will manage the project and furnish technical supervision. Additional contracts will be awarded to private industry for plant maintenance, transportation, security, food services, and other necessary support.

And this is only the beginning. If the development at Cape Canaveral and Huntsville is any guide, related private industries of many types will establish in the area in large numbers. Manufacturers of fuels, high pressure gases, and suppliers of construction materials, electronic components, and similar products to be used at the test facility will find it convenient to their operation and financially beneficial to have a plant or offices near the actual site.

When we stop to consider the great number of jobs the test facility will provide, as well as those made possible by related private industry, and the natural accelerated business activities springing from this development, it is obvious benefits resulting therefrom will be multiplied many times over the actual initial cost of the installation itself. In fact, I am confident the economy of the entire area, within the radius of 100 miles, will receive a substantial boost.

In addition, I am pleased to report that the Space Administration is financing important research to be conducted jointly by the Mississippi Industrial and Technological Research Commission, Mississippi State University, and Ole Miss. This study will develop information about the resources of Mississippi and other states in the area to determine ways in which we can make a major contribution to the science and technology of the space age. I am confident they will find our potential unlimited. And other highly important research studies are being conducted in our other colleges and universities. Mississippi definitely has a key place on the ground floor in our space program.

'ALL OR NOTHING'

Since the Soviets orbited their first Sputnik, I have been deeply concerned about our rocket and space program. I have said our space program is "all or nothing" meaning that unless we are going all out we need not start. I have actively supported and pushed for an all out program. We have made splendid progress. Although the Soviet Union is now ahead in big boosters capable of launching heavy payloads, the Unted States is far in advance in scientific achievements. Altogether we have sent 69 vehicles into orbit around the earth, whereas the Soviet Union has orbited 17. Today the score for the United States is 33 space vehicles still in orbit, with four for the U. S. S. R., and these figures do not include all our satellites launched by the military in recent months.

Great as they are, these successful orbits are merely scratching the surface of possibilities in space. Can we stop now? Suppose we had failed to develop air power following the first successful airplane flight of the Wright brothers at Kitty

Hawk, N. C., in 1903? Or even following World War I, or following World War II? We would have become a second-rate power, and doubtless would have been overrun and overtaken long ago.

When Colonel Glenn appeared as a witness before our Senate Space Committee following his orbital flight, I asked him this question: What place in the development of our air power would be comparable to where we are now in space vehicles and flights? He replied: "I would say, we had just now completed the third hop at Kitty Hawk. We are certainly not beyond that point."

And millions over the world travelled with Colonel Glenn. With the success of that mission, our national prestige soared to new heights. The confidence of the world in our leadership, and in our scientific ability and potential was restored. The whole world looked to Washington with new admiration. We are proud of our achievements. It is the future, however, that is our concern as well as our challenge. Our leadership and our national security are at stake.

In short summary, these distinct facts are clearly established and must be a part of our plans and policies for the present and the future:

The nation that controls outer space will eventually gain control of the world. Consequently, we *must* be first.

When powerful instruments operate with such Swiss-watch accuracy that within five hours a man can be blasted into orbit, travel three times around the world at over 17,000 miles an hour and land, within seconds of the intended time and within a few miles of the intended place, it is all too clear that nuclear weapons in unlimited numbers can successfully destroy any earth target.

Revolutionary changes in national and international communications systems, including television and every news medium, are certain to bring worthwhile and even more far-reaching practical benefits to humanity.

Weather satellites of high practical value in agriculture, business, transportation and navigation are already in operation and will expand in value.

A new generation of scientists, engineers and technicians are already needed. Our young people need only the leadership to guide them in preparing themselves. I am confident our high schools, colleges and universities will join hands to stimulate this necessary wider interest in science.

Within less than 20 short years, we have had two scientific "breakthroughs," in the field of atomic power and in the successful exploration of space. Thus we have opened and stand at the threshold of what I believe will be man's greatest field of development. ★★★

5213 New Senate Office Building
(Washington)

FLYING HIGH, WIDE, AND ACCIDENT-PRONE

A Navy psychologist suggests that the nation's commercial airline pilots have it too easy in the cockpit, and that flying might be safer if they had it a little tougher. Richard Trumbull, director of Naval Research's Psychological Science Division, studied air accidents attributed to "pilot error" and declared it paradoxical that accidents continue to occur because of such error even with the steps being taken to make flying easier and safer. "One is tempted to ask," he said, "if the pilot is too well protected, too comfortable, and if the weather can sometimes be too good." His theory is that a pilot relaxes when flying conditions are "too good" and is not as alert to changing conditions. "There will be times, strange as it may seem, when pilots involved in accidents could have avoided them if their working conditions had not been so good—for example, when the weather is marginal rather than perfect, forcing them to give more attention to their tasks."

Clinicopathological Conference XXXII

Conducted by the Department of Pathology
Mississippi Baptist Hospital
Jackson, Mississippi

The patient in this month's CPC is a 58-year-old white male who was admitted with a complaint of pain in the abdomen, which had been present for approximately two days. The pain began in the region of the umbilicus and extended downward over the lower abdomen. Approximately a year before admission the patient had had an acute anteroseptal myocardial infarct and had been placed on long-term anticoagulant therapy employing Coumadin.

Discussers are Drs. Leonard Posey, Jr., Kenneth M. Heard, Elmer J. Harris, James M. Packer, Thomas J. Safley, Jorge A. Rodriguez, and James B. Lockhart, Jr., third year medical student.

THIS PATIENT WAS a 58-year-old white male who was admitted to the Mississippi Baptist Hospital on July 9, 1962. The chief complaint was pain in the abdomen which had been present for approximately two days. The pain began in the region of the umbilicus and extended downward over the lower abdomen. On two occasions during this time he had passed blood rectally. He had vomited only once. There had been no hemoptysis or hematemesis. He had continued to have bowel movements. There was no associated diarrhea and no urinary symptoms.

Past history revealed that this patient had a documented acute anteroseptal myocardial infarct in July 1961. He was placed on long term anticoagulant therapy employing Coumadin, 10 mg. daily alternating with 5 mg. He had been seen by a cardiologist on several different occasions since September 1961, with normal physical findings and electrocardiographic evidence of an old anteroseptal myocardial infarct. His blood pressure during this period had ranged between 104/70 to 114/72. Chest x-ray on two occasions showed normal heart and lungs.

At the time of admission, physical examination revealed a blood pressure of 130/80, temperature 97, pulse 80, and respiration rate 18. Examination of the eyes, ears, nose, and throat, lungs and heart were negative. On abdominal examination there was exquisite tenderness in the lower abdomen with rebound. There was moderate guarding in the left lower abdomen. Peristalsis was active. There was a linear mass in the left lower quadrant which apparently was quite tender. The size of this is not further described.

Admission urinalysis showed a specific gravity of 1.015, a slight trace of albumin, 4 to 6 white blood cells per high power field, and 0 to 2 red blood cells per high power field. There were many finely granular casts. Admission hematology showed a white count of 13,700 with a differential of 80 per cent P.M.N., 1 band, 15 per cent lymphocytes, and 4 per cent monocytes. The hemaglobin was 14.5 gm., and the hematocrit 41 volumes per cent. The platelets appeared adequate. The prothrombin time checked shortly following admission showed a control of 12 seconds with the patient's prothrombin time being over 60 seconds. He was given 100 mg. of Demerol and a drip was started composed of 1,000 cc. of 5 per cent dextrose in distilled water with 50 mg. of Aqueous Mephyton. At the same time he was given 10 mg. of Aqueous Mephyton IV. Following completion of therapy, a recheck prothrombin time showed a control of 12 seconds with the patient's prothrombin time being 19 seconds. On the following day the control was 12 seconds with the patient's being 13 seconds. Following therapy, the patient's pain was apparently relieved except for some soreness. The severe pain present on admission had diminished.

During the next several hospital days, the patient's condition remained improved with the pain

not becoming severe again. During this time x-ray examinations were made. An erect film of the abdomen done on July 10, 1962, was interpreted as being essentially normal. On July 12, a chest film was interpreted as showing moderate pulmonary emphysema. Gallbladder function studies were normal. On an upper G. I. series the esophagus was normal at fluoroscopy. No hiatal hernia could be seen. Peristalsis was active and uninterrupted throughout the stomach, and no niche or filling defect could be outlined. The cap filled without difficulty and showed no deformity or crater. One and possibly more loops of jejunum showed a feathery appearance indicating thickening or edema of the mucosa. The impression was that there was evidence of an enteritis seen in the proximal jejunum.

A small bowel study was made on July 13, 1962. The barium meal was followed down to the ascending colon. There was a lapse of only about one hour between the ingestion of barium and the appearance of the head of the column in the ascending colon. A loop of jejunum just past the ligament of Treitz was seen to be involved in an abnormal process consisting of slight dilatation of the lumen, fairly marked thickening of the mucosa (giving it a coarse feathery appearance), and some rigidity seen on multiple films (Figure 1), this also having been noted on fluoroscopic examination. This loop measured about 14 cm. in length, and there appeared to be lesser involvement of an ascending loop of the jejunum measuring about the same length. Distal to this involvement of the jejunum, no abnormality could be demonstrated radiographically in the remaining jejunum or ileum (Figure 2). A barium enema done on July 14 was negative. On July 17, 1962, an operation was performed.

DISCUSSION

Dr. Leonard Posey, Jr.: "I am sure that everyone has read this very interesting protocol, so I hardly see any need to read it over again, but I will call attention to the major points. If we can accept the fact that all of the pertinent information necessary for the establishment of a diagnosis is contained in the protocol, this is the case of a 58-year-old white male with known cardiovascular disease who had been on Coumadin for many months. He developed a sudden acute and painful, but not catastrophic, illness that was promptly followed by subsidence of the acute process and by continued clinical improvement. X-ray studies showed a peculiar appearing lesion in the jejunum. The patient's symptoms occurred at a time when he had sustained a marked overdosage of Coumadin, with prolongation of his prothrombin time. It is interesting to note in the protocol that there was no evidence of obstruction present, either clinically or on the scout film of his abdomen. It is also necessary to note that he did have a mass present in his left lower quadrant, which was described as linear and which was exquisitely tender. Whether this palpable mass persisted after therapy, I don't know. Do you happen to know, Dr. Heard?"

Dr. Kenneth M. Heard: "I believe so, but I am not one hundred per cent sure."

Dr. Posey: "When he became well enough, he underwent a series of studies. From the x-ray point of view, a rather peculiar-appearing lesion was noted in his jejunum. We will have to assume, since nothing else was found on his studies, that the lesion found in the jejunum accounted for the abdominal symptoms that he had. Then it is the object to try to arrive at a diagnosis of the nature of this process involving the small intestine. Before I ask the radiologist to comment on his findings, I do feel that we should mention the



Figure 1.

fact that there was virtually nothing on his laboratory findings that was of any value at all. I doubt very seriously if the finding of the many



Figure 2.

finely granular casts in the urine would be considered to be an integral part of the current illness in an individual with known vascular disease who has had no blood in his urine. Also his WBC count was only slightly elevated, and he only had a slight increase in the number of P.M.N. present. Following the administration of Mephyton his prothrombin time, which had been tremendously prolonged, did come down to essentially normal levels, so apparently he had pretty good basic liver function to respond that well. I would like to ask the radiologist to show the films and tell us what they see there before we go any further."

Dr. Elmer J. Harris: "Dr. Robert P. Henderson did this examination and found some moderate pulmonary emphysema in the chest. The gallbladder was normal. In the upper GI series there were some abnormalities in the proximal jejunum. This film shows a loop of jejunum that appears to be constricted over a length of 6 inches or more with altered mucosal pattern and a thickened, coarse appearance. This is constantly noted on many views, and on one view this same loop of jejunum appears to be on the opposite side of the abdomen. Dr. Henderson brought the patient back and examined him again the following day, producing the same findings."

Dr. Posey: "Dr. Henderson's impression was that there was some dilatation of the lumen rather than some constriction?"

Dr. Harris: "No, I don't believe you understand what I meant. Here is an area that could actually represent some alteration. This is wider than the average lumen, but most of this lumen is actually narrowed, I think."

Dr. Posey: "The note that we have in the protocol states that the loop of jejunum just past the ligament of Treitz is seen to be involved in an abnormal process consisting of slight dilatation of the lumen, fairly marked thickening of the mucosa (giving it a coarse, feathery appearance), and some rigidity seen on multiple films. No mention of any ulceration or mucosal destruction in present."

Dr. Heard: "This was copied directly from the x-ray report."

Dr. Posey: "Do we have a difference of opinion among the radiologists?"

Dr. Harris: "No, I think we are describing the same thing, perhaps in different words. It would be obvious to anybody that there is some alteration in that mucosa; certainly, there is a rigid area there."

Dr. Posey: "Would you call that edematous mucosa?"

Dr. Harris: "I would say so, yes. How would you describe that, Dr. Packer?"

Dr. James M. Packer: "It would be my inclination that the mucosa is full and edematous."

Dr. Harris: "Actually, what is inside there is probably more narrowed than the remainder of the jejunum."

Dr. Posey: "You do not see any linear streaks that are seen with an intussusception?"

Dr. Harris: "I do not believe that this represents an intussusception."

Dr. Posey: "We are dealing with a process that involves a length of jejunum which has a certain degree of mobility in that it does apparently shift its position. There possibly could be an abnormally long mesentery in that region. This is accompanied by a good deal of edema, some straightening out of the loop, without any significant destruction by any area of discrete ulceration. The process also is one which is accompanied by apparent small bowel obstruction. We know, of

course, that anticoagulant therapy can cause bleeding from either pre-existing neoplastic or ulcerative disease or inflammatory lesions and that anticoagulant therapy can of itself cause gastrointestinal bleeding as well as bleeding from pericardium or from kidneys or into the central nervous system. We have to decide whether this process antedates the excessive anticoagulation. At least as far as the protocol is concerned there is no available history to suggest any antecedent gastrointestinal dysfunction of any sort. We trust that the protocol is sufficient in that regard.

DIAGNOSTIC POSSIBILITIES

"What sort of lesions can we find in this area that would satisfy a requirement of mucosal edema without mucosal obstruction and without obstruction of the small intestine? I believe mechanical lesions such as volvulus, strangulation, or intussusception can automatically be ruled out, and I do not feel that they need to be discussed any further here. Vascular lesions, such as mesenteric thrombosis, obviously, could be excluded because of the prolonged prothrombin time, and any arterial lesion that had taken place would be rather unlikely in view of the individual's fairly dramatic improvement from a clinical point of view. If we consider the possibility of neoplasm, any type of neoplasm involving that long a loop of jejunum would almost of necessity have to be a lymphoma. I would consider that rather unlikely in view of the degree of mucosal edema without obvious destruction of the mucosal pattern. It would be quite uncommon for a carcinoma to extend over that long a segment. I would also feel that any secondary carcinoma, which in this particular location would almost have to come from direct extension from the left kidney or adrenal gland, would be rather unusual in view of the length of involvement of the segment. Incidentally, this segment, as we see, does go far enough down into the pelvis to account for a mass that would be felt in the lower left portion of the abdomen.

"As far as inflammatory lesions are concerned, solitary jejunal ulcer is relatively uncommon, usually accompanied by a niche and a tremendous degree of spasm and narrowing of the mucosa, which is not evident in this case. Again, we see a long segment involved, so I feel that this possibility can be excluded. A regional enteritis, of course, would be the prime thing that one would think of right off the bat. In view of the absence of antecedent symptoms, we would doubt that one would see this process this extensive without previous manifestations from a clinical point of view. Also, we do not have any marked narrowing of the lumen or destruction of the mucosa which would be present in a regional enteritis. Crohn has described approximately 18 cases of his own, which he has collected over a period of years, that originated as an acute ulcerative enteritis, later on progressing to the point of the usual stenotic variety. However, each of these cases, when it was found radiographically, was accompanied by severe mucosal destruction without any evidence of stenosis, so again I do not believe that we can call this a regional enteritis. By the same token, I do not believe that we can consider this as representing an area of tuberculosis in that portion of jejunum.

"As far as the exotic group of diseases such as Whipple's disease, scleroderma, and amyloidosis, those usually are manifested by more of a moulage sign than we see in this area and are diffuse processes rather than localized as is seen here. I would not feel that we have anything to base the diagnosis on along this line. This leaves us with no reasonable, logical explanation for what this could be, and I am forced to diagnose this case as hypoprothrombinemia with spontaneous bleeding into the gastrointestinal tract and dissection of blood along the loop of small intestine, which would give a thickening of the loop, palpable mass, edema of the mucosa, gastrointestinal bleeding, and painful symptoms which subsided fairly promptly after administration of Mephyton. I would have to make this my diagnosis, by exclusion."

FINDINGS AT SURGERY

Dr. Heard: "Thank you, Dr. Posey. Dr. Safley was the surgeon on this case. Would you like to tell us about your findings?"

Dr. Thomas J. Safley: "When the abdomen was opened, there was a moderate amount, I would say 200 cc., of old blood in the peritoneal cavity. On exploration, the only thing we found was hemorrhage into the wall of the proximal jejunum, beginning at the ligament of Treitz and extending downwards for approximately 8 or 9 inches with a rather sharp line of demarcation, which suggested that that was the line of pressure from some incarceration. On further exploration a paraduodenal fossa was found."

Dr. Heard: "A paraduodenal hernia or fossa?"

Dr. Safley: "It was my impression that when he came in he had an incarcerated paraduodenal hernia which would explain the exquisitely tender mass with a definite shelf, extending down below

the umbilicus, and that with the administration of Demerol for relief, he relaxed enough to allow this thing to slip out. That is the only way that I can explain the findings. He did have the paraduodenal fossa which I believe had been an incarcerated paraduodenal hernia."

ANATOMY OF REGION

Dr. Heard: "Jim, do you want to say something about the anatomy of that region?"

Jim Lockhart: "There are four fossae that may be found in the duodenojejunal region. The paraduodenal fossa is the rarest of the four, occurring in roughly 2 per cent of autopsied cases. Its presence is dependent upon a fold of peritoneum that is raised by an ascending branch of the left colic artery and the inferior mesenteric vein. This fossa is also considered to be the longest of these fossa that can be present around the duodenum. It is located at roughly the L2-3 level, and its mouth opens mesially while its pouch extends in a leftward direction."

Dr. Posey: "I would like to ask Dr. Safley how he explains the presence of an incarcerated hernia in the absence of an obstruction on the scout film of the abdomen?"

Dr. Safley: The timing in this case is the all-important thing when you try to figure out what happened. His pain began on Friday afternoon. He was referred to me on Monday afternoon about 3:00, and, because he was hurting, but not apparently ill (pulse of 80, vomiting only one time, exquisite tenderness without muscle guarding or anything of that kind), we did not do any x-ray work. His x-rays were made on July 10, which would be the day after admission, and his relief came between 6:00 and 9:00 p.m. on July 9, so that the thing had automatically or spontaneously reduced itself before we got a film or anything. My admitting diagnosis was retroperitoneal bleeding from the anticoagulation."

Dr. Heard: "Could not the dramatic relief afforded by Vitamin K-1 be significant—I mean, stop the hemorrhage and stop the stretching of the serosa?"

Dr. Posey: "This was the way I reconstructed the thing. I also understood that the mass was still present after the initial therapy."

Dr. Heard: "I said I wasn't sure. You still could palpate the mass after the initial therapy?"

Dr. Safley: "I thought I could, but I am not sure. No, I would not say that I could still feel that mass. The exquisite tenderness when we touched that mass was present only prior to the administration of the Demerol around 6 p.m. or a little earlier. We gave him Demerol, 100 mg. I don't thing the Vitamin K played a part in it. I may be all wrong, but I believe that it was the relaxation that came along with the Demerol that caused the thing. Actually, I think that extremely low prothrombin time is why we did not have to resect. He had enough damage to the wall of that bowel, even after eight days, to make me think that if he had had a normal bleeding time he would have had thrombosis in the vessels of that wall. Every little vessel that you could see anywhere was pulsating, even though the bowel wall was practically black around it, which makes me think that while the prothrombin time accounted for the bleeding, it had nothing to do with anything but keeping him from thrombosing the vessels in the wall of his bowel."

PATHOLOGIST'S REPORT

Dr. Heard: "We are always presenting peculiar CPC's. This is one that we do not have any tissue on, except a hyperplastic lymph node and an appendix. In the operating room I saw just exactly what Dr. Safley described—this fairly sharply demarcated segment which was swollen and reddish blue, predominantly blue in coloration. I do not see how anybody can be sure whether or not there had been a herniation. My reason for presenting this case is to bring out the point that Dr. Posey has emphasized, that is that hematomas do occur within the bowel in long-term anticoagulant therapy. These have been reported as the cause of intestinal obstruction. There is an article in *Lancet* for July 1961, in which they report two cases in detail and state that they had a total of seven. They also give references regarding single hematomas of the bowel. There may have been a hernia and that promoted the hemorrhage, but I firmly believe that the prolonged prothrombin time was involved in this. Certainly, as you remember, he had a history of bright red rectal blood. When did that occur?"

Dr. Safley: "That occurred on Sunday, and on Monday I put him in the hospital. Why would there be a sharp line of demarcation?"

Dr. Heard: "I do not know why there would be a sharp line of demarcation, but this was noted also in some of the reported cases."

Dr. Jorge A. Rodriguez: "You said that your admitting diagnosis was retroperitoneal hematoma?"

Dr. Safley: "Yes."

Dr. Rodriguez: "How do you then explain the rectal bleeding?"

Dr. Safley: "If he had spontaneous bleeding retroperitoneally, he might also have had spontaneous bleeding into the bowel."

Dr. Heard: "Of course with marked hypoprothrombinemia, he might have skin hemorrhages or other such findings, which he did not have."

Dr. Safley: "I couldn't find anything else."

Dr. Posey: "Were you able to do anything to prevent a recurrence?"

Dr. Safley: "Yes, I was able to close the flap which had the blood vessel in it that Jim Lockhart mentioned. It was a very loose flap, which I think explains why he has never had any trouble with it before. We were able to pull this down and suture it to the posterior peritoneum and to the wall of the duodenojejunal junction, so as to completely obliterate that fossa."

Dr. Packer: "I want to comment on one point about the plain x-ray film that might be confusing: Why didn't the plain films show obstruction? If the bowel were obstructed at that time by an incarcerated hernia, you would obtain very little help from a plain film because all you would have behind it is just thick loops of duodenum and stomach. Frequently you have small quantities of fluid and gas on plain films with that high an obstruction, and these are often confusing and uninformative."

Dr. Heard: "Certainly, there was no clinical evidence to suggest obstruction. He vomited only one time."

Dr. Posey: "If it were incarcerated, I do not see why he would not have been obstructed."

Dr. Heard: "You would have thought that if it had been incarcerated for two days."

Dr. Safley: "Not that high up."

Dr. Heard: "I mean, his history was two days."

Dr. Safley: "His history was two days, but duodenal obstruction and obstruction of the jejunum as far as two or three feet below that give almost immediate regurgitation."

Dr. Posey: "He vomited only once according to the protocol."

Dr. Safley: "He vomited only one time, and that was on Sunday afternoon. I am not going to hold out that this was incarcerated, but the thing that strikes me is the peculiar look of this thing in every respect, with edema of the mesentery and all other findings, makes it appear exactly like any sort of incarceration of intestine."

Dr. Heard: "I am going to stick to my guns too, I still am going to say that the hypothrombinemia was involved."

Dr. Safley: "His pain did not get severe until Monday. It is entirely possible that the beginning of the thing was hemorrhage with this loop tucked back in the fossa which caused it to get trapped in there, and it was not there but a few hours. As soon as it was relaxed, it disappeared. Now, I am not going to try to explain it. All I can say is what I found."

Dr. Heard: "This article describes what they call a crescendo of pain, which builds up over an even longer period of time than this, over a week in average cases, gradually becoming worse and worse. I am sure that is associated with increasing distention of the serosa of the bowel."

Dr. Safley: "That is entirely possible." ★★★

1190 North State Street

REFERENCES

1. Beamish, R. E., and McCreath, N. D.: Intestinal Obstruction Complicating Anticoagulant Therapy, Lancet 2:390-392 (Aug. 19) 1961.

ALL THIS AND HEAVEN, TOO

During the critical debate in the U. S. Senate over the Anderson-Javits amendment proposing compulsory federal medical care for the aged, the Republican minority leader, Sen. Everett Dirksen of Illinois, polished off his speech opposing the move with characteristic Dirksenian rhetoric and color:

"This situation," the senator said, "reminds me of a story about the rector of an English church who was preaching to his congregation about all the glories of heaven—ambrosia, nectar, and everything else on which one would subsist, including some substantial viands. When he got through, one of his parishioners said to him, 'Parson, what good will that do me, without teeth?'

"The rector replied, 'Under social security, teeth will be provided.' "

—*The Congressional Record*

MEETINGS

NATIONAL AND REGIONAL

American Medical Association, Clinical Meeting, Nov. 25-28, 1962, Los Angeles, Calif. F. J. L. Blasingame, Executive Vice President, 535 N. Dearborn St., Chicago 10, Ill.

American Academy of General Practice, April 1-4, 1963, Chicago, Ill. Mr. Mac F. Cahal, Executive Director, Volker Blvd., at Brookside, Kansas City 12, Mo.

American College of Surgeons, Clinical Congress, Oct. 15-19, 1962, Atlantic City. William E. Adams, 40 E. Erie St., Chicago 11, Secretary.

International College of Surgeons, XIII Biennial International Congress, Sept. 9-13, 1962, New York. W. F. James, Executive Director, 1516 North Lake Shore Drive, Chicago 10, Ill.

Southern Medical Association, Nov. 12-15, 1962, Miami Beach, Fla. Mr. Robert F. Butts, Executive Director, 2601 Highland Ave., Birmingham 5, Ala.

STATE AND LOCAL

Mississippi State Medical Association, May 13-16, 1963, Biloxi. Mr. Rowland B. Kennedy, Executive Secretary, 735 Riverside Drive, Jackson.

Mississippi Chapter, American College of Surgeons, Nov. 16, 1962, Heidelberg Hotel, Jackson. Edward C. Hamilton, 14th St. and 25th Ave., Gulfport, Secretary.

Mississippi Academy of General Practice, Annual Meeting, Sept. 26-27, 1962, Hotel Heidelberg, Jackson. Miss Louise Lacey, Executive Secretary, P. O. Box 1435, Jackson.

Amite-Wilkinson Counties Medical Society, First Tuesday March, June, September, December. S. E. Field, Centreville, Secretary.

Central Medical Society, First Tuesday Monthly, 6:30 p.m., Robert E. Lee Hotel, Jackson. George E. Gillespie, 514-A East Woodrow Wilson Drive, Jackson, Secretary.

Claiborne County Medical Society. D. M. Segrest, Port Gibson, Secretary.

Clarksdale and Six Counties Medical Society, Second Wednesday March and November, 2:00 p.m., Clarksdale. Whitman B. Johnson, Jr., 645 Evelyn Ave., Clarksdale, Secretary.

Coast Counties Medical Society, First Wednesday March, June, September, and November. Charles N. Floyd, 1412-23rd Ave., Gulfport, Secretary.

Delta Medical Society, Second Wednesday April and October. Howard A. Nelson, 308 Fulton St., Greenwood, Secretary.

DeSoto County Medical Society, Second Thursday January, April, July, and October, 1:00 p.m., Hernando Motel Cafe, Hernando. L. L. Minor, Route 9, Memphis 9, Tenn., Secretary.

East Mississippi Medical Society, First Tuesday February, April, June, August, October, and December. Hugh S. Rayner, Jr., 1216-21st Ave., Meridian, Secretary.

Homochitto Valley Medical Society, Fourth Tuesday Monthly, 7:30 p.m., Natchez Country Club, Natchez. W. T. Colbert, Natchez General Hospital, Natchez, Secretary.

North Central District Medical Society, Second Wednesday March and September. Robert B. Townes, Jr., 1196 Mound St., Grenada, Secretary.

Northeast Mississippi Medical Society, Second Tuesday March, June, September, and December, Tupelo. Thomas W. Wesson, 421 Main St., Tupelo, Secretary.

North Mississippi Medical Society, First Thursday January, April, and October, Oxford. Marcus E. Morrison, 512 Van Buren Ave., Oxford, Secretary.

Pearl River County Medical Society, Second Monday March, June, September, and December. Samuel O. Massey, Jr., 220 E. Canal St., Picayune, Secretary.

South Mississippi Medical Society, Second Thursday March, June, September, and December. Thomas F. Puckett, 715 Arledge St., Hattiesburg, Secretary.

Tri-County Medical Society, Second Tuesday March, June, September, and December. A. V. Beacham, Magnolia, Secretary.

West Mississippi Medical Society, Second Tuesday January, April, July, and October, 7:00 p.m., Old Southern Tea Room, Vicksburg. Tom H. Mitchell, The Street Clinic, Vicksburg, Secretary.

Radiologic Seminar V: Aspirated Nonopaque Bronchial Foreign Bodies

ROBERT R. SURRATT, M.D.
Jackson, Mississippi

The Radiologic Seminar for September considers aspirated nonopaque bronchial foreign bodies. The author points out that while opaque bodies so aspirated can be easily diagnosed and localized, nonopaque foreign bodies are not visible on radiographs and depend for diagnosis upon the manner in which they interfere with the normal dynamics of respiration. He discusses the sequence of events which follows foreign body aspiration and presents a case report.

ASPIRATED BRONCHIAL foreign bodies which are opaque can be easily diagnosed and localized. Usually only a routine chest radiograph with a lateral view is necessary. Nonopaque bronchial foreign bodies are not visible on radiographs and depend for diagnosis upon the manner in which they interfere with the normal dynamics of respiration. To demonstrate alterations in respiratory dynamics, films must be obtained in deep inspiration and maximum expiration. Fluoroscopy may be helpful but except in rare cases does not supply enough additional information to be worth the added exposure.

Normal inspiratory radiographs reveal maximum distension of the lung and thorax with the ribs horizontal and with wide intercostal spaces. The diaphragm leaves are low. The mediastinum is narrow. The opposite is shown in expiratory radiographs. The lung and thorax are decreased in volume with the ribs less horizontal and the intercostal spaces narrow. The leaves of the diaphragm are elevated and the mediastinum becomes wider. These dynamics are usually altered by foreign bodies.

In the sequence of events which follow foreign body aspiration, obstructive emphysema usually is first to develop. This results from a "ball valve" action of the foreign body. During inspiration air is allowed to enter the lung around the foreign body. Upon expiration the bronchial lumen narrows clamping down on the foreign body thus preventing air leaving the involved lung. This trapped air distends the lung and hence the term, obstructive emphysema. In obstructive emphysema an inspiratory film may show minimal changes (Figure 1), but an expiration film (Figure 2) will reveal on the obstructed side an overdistended lung, thorax, and intercostal spaces with the diaphragm low and fixed. The heart and mediastinum will be shifted toward the unobstructed side and the diaphragm on this normal side will be elevated. These changes are all the result of the inability of the obstructed lung to empty itself.

This phase of obstructive emphysema lasts until the bronchial mucosa about the foreign body develops sufficient edema and reaction to produce complete obstruction. The trapped air within the lung is absorbed and obstructive atelectasis develops. Radiographs in obstructive atelectasis show an opaque, contracted, airless lung with the mediastinum shifted toward the obstructed side and the diaphragm elevated on this side. The ribs are more vertical and the intercostal spaces are narrow. These changes result from adjustment to the decreased volume of the atelectatic lung.

If a lobe or segment is involved either with obstructive emphysema or atelectasis rather than an entire lung the radiographic findings would be the same but less striking.

The complications which arise from foreign body obstruction are infection, lung abscess, and empyema. Rarely mediastinal emphysema and pneumothorax have been reported. Bronchiectasis is a common residual complication.

Sponsored by the Mississippi Radiological Society.



Figure 1. Inspiration. There is mild bilateral infection. This film alone would not suggest the nonopaque foreign body present in the left main stem bronchus.

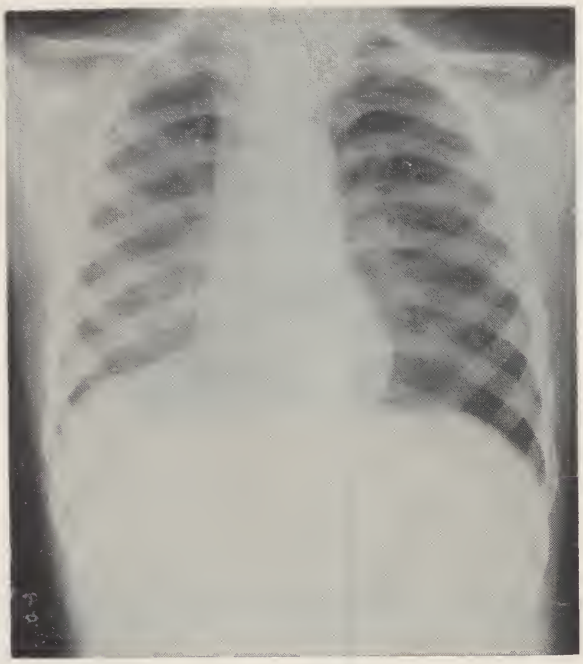


Figure 2. Maximum expiration. Left obstructive emphysema with low fixed left diaphragm, shift of mediastinum, heart toward unobstructed right lung. Nonopaque foreign body left main bronchus.

CASE REPORT

A four-year-old white female was referred for roentgen examination with physical findings and a history suggestive of a respiratory foreign body. The child had strangled and coughed when eating shelled pecans a few days before. She was not thought to be ill and was brought to a physician for a routine physical examination.

Radiographs revealed obstructive emphysema on the left. The inspiratory radiograph (Figure 1) revealed mild bilateral infection. The expiratory radiograph (Figure 2) demonstrated an overdistended left lung with the left diaphragm fixed in a low position and a shift of the heart and mediastinum toward the unobstructed lung on the right. The diagnosis of obstructive emphysema of the left lung resulting from a nonopaque foreign body within the left main stem bronchus was confirmed by the bronchoscopic removal of shelled pecan fragments.

A foreign body should always be considered a possibility in respiratory disease in children. Radiographic study usually will rule this possibility in or out but if not conclusive, bronchoscopy is advisable. ★★★

4531 Brook Drive

REFERENCES

1. Arbuckle, M. F.: The Diagnosis of Nonopaque Foreign Body in the Tracheobronchial Tree with a Description of the Physical and X-ray Findings, J. Pediat. 11:356-373, 1937.
2. Miller, George A., et al.: The Asymptomatic Period in Retained Foreign Bodies of the Bronchus, A.M.A. Am. J. Dis. Child 95:282-283, 1958.
3. Schwarz, E.: Retained Foreign Bodies in the Tracheobronchial Tree of Children, J.A.M.A. 175:164-165 (Jan. 21) 1961.

THE PROVIDENT POTENTATE

An Indian potentate, says *Insider's Newsletter,* has a standing order with a big New York pharmacy for a shipment of 400 birth control pills each month. Seems it takes 20 pills per haremite to insure full coverage.



The President Speaking

'Granddaddy of Them All'

C. P. CRENSHAW, M.D.
Collins, Mississippi

THE ANNUAL SESSION of the American Medical Association is much more than the granddaddy of all medical meetings. As is appropriate, scientific activity dominates the picture and to say that "there is something for every physician" at such a convocation is to understate the case. It is unlikely—even if time might be stretched—that a single physician could see and hear every scientific presentation at the AMA annual session in a year.

A second side of the coin is the work of the House of Delegates which affects not only every physician but every American as well. To those who have never attended a meeting of the House, it is difficult to describe the massive and staggering amount of thoughtful, precise information, studies, reports, data, and recommendations which come from the official bodies of medicine's parent organization. Despite this variety and magnitude, the presentations are direct, understandable, actually the lean red meat without the fat. The devotion of the delegates themselves is something to be appreciated because they work long hours in behalf of their colleagues at home.

The 111th Annual Session of AMA was a pleasant experience for your president in many ways. Our association is respected and highly regarded at national level. The names of Mississippi physicians who contribute to the scientific deliberations of these meetings are familiar to doctors from every state. Our representatives in the socioeconomic and organizational arenas are esteemed. The honor of the office of vice president for 1962-63 came to a Mississippian, Dr. J. P. Culpepper, Jr. of Hattiesburg. As one of AMA's five general officers, he will represent American medicine in its highest traditions.

It's just a suggestion but it might make better doctors of us all: Let's encourage every young physician to attend at least one AMA meeting during his first three years of practice to gain a true perspective of what medicine in America really means. And to those of us established in our profession—let's get together at Los Angeles next November! ★★★

JOURNAL OF THE
MISSISSIPPI STATE
MEDICAL ASSOCIATION

Volume III, Number 9

September 1962

EDITORIALS

For the Betterment of All: Medicine in the Space Age

A QUARTER OF A CENTURY elapsed between the time man discovered a reliable means of flight and his association of this artificial state with physiologic function. In 1927, Dr. Hubertus Strughold delivered the first lectures on aviation medicine at the University of Wuerzburg in Germany. Three decades later, he became the first professor of space medicine in the United States.

Human tolerance limits to impact forces, dynamic stress analyses, and windblast effects were attacked empirically by John Paul Stapp, another space research pioneer whose rocket sled tests electrified the scientific world. David Goodman Simons, working with Colonel Stapp, ascended to the edge of space in 1957 during the celebrated "Manhigh" balloon flight. These physician-scientists and their colleagues unlocked the door to manned space exploration.

Of equal importance is their continuation of these vital investigations which are progressively pragmatic in application to clinical medicine. Obviously, Dr. Strughold's work directly benefits 50 million domestic airline passengers each year in assuring greater safety through air crew effectiveness. Furthermore, his fruitful career has provided the basic underlay for the full spectrum of space medicine. Much more is understood about impact trauma upon living human tissue and the musculoskeletal system because of Colonel Stapp's courageous experiments. Colonel Simons' imaginative work in the stratosphere and the laboratory is of immense value. His creative findings in radio transmission of psychophysiologic data require little refinement or modification in reapplication from astronaut to patient.

This, then, is apparent: what constituted yesteryear's scientific dream is today's patient care benefit.

Nearly a thousand persons heard this astonishing narrative unfold at the association's uniquely original Symposium on Space Medicine during the 94th Annual Session. Now the JOURNAL records it for the literature. The editors are understandably gratified and they, with others sharing in the tasks of marshalling this milestone issue, express deep appreciation to these authors whose contributions have international significance.

Nor would this expression be complete without reference in like context to the other participants in the symposium whose papers complete this special issue. Dr. Lawrence W. Long's practical viewpoint translated much of the meaning of these advanced studies into the clinician's perspective. Our distinguished senator, the Honorable John C. Stennis, related the role of government to these endeavors from vantage points of defense, scientific achievement, and economics. Thus, he balanced and consolidated both the value and applicability of the symposium content.

For the betterment of all Americans, medicine is literally in the space age.—W.M.D.

Insurance Is a Bargain If It Does the Job

Insurance should be purchased to indemnify us against only those losses which we could not otherwise sustain conveniently without it. So goes a morsel of solid wisdom often dispensed by conscientious insurance agents. Thus, insurance coverage purchased should be designed to do a specific job for which a valid economic need exists. If the contract is inadequate or if no need is experienced by the prospective assured, it's money down the drain.

For physicians, insurance is generally a necessity because the self-employed professional person usually has a greater need in this respect than his salary-earning economic equal. The doctor's greater liability exposure, income provision during periods of disability, and maintenance of his office during sickness pose loss potentials not lightly ignored. He needs special coverage for these special circumstances.

A current example of insurance tailored to a special job is the American Medical Association income replacement program offering lifetime total disability income protection. For those able to sustain the economic loss of no income until the total disability has lasted for 365 consecutive days, this program can supplement other first dollar, early benefit plans. But actuarial experience seems to demonstrate that few claimants really need such coverage.

A major casualty insurance company recently made a study of 50,379 sickness claims, turning up some astonishing findings. Of this impressive total, more than half of the claims were satisfied *after 14 days of benefits.* After three months, 98.53 per cent or 49,636 of the claims had been settled. The percentage was 99.60 after six months and after one year, 50,356 claims, 99.95 per cent, were closed.

Based upon this actuarial experience, the probable exposure of the AMA sickness and accident group is 0.05 per cent or 5 physician-claimants per 10,000 group members. Under the terms of the contract, not a single sickness or accident benefit will be paid during the first year.

The moral and lesson are these: to profit from insurance ownership, verify the existence of an economic need representing a potential loss which, without insurance can't be sustained, find the insurance which meets this need, buy it, and be glad you did.—R.B.K.

NEW MEMBERS

The following physicians have been elected to membership by their respective component medical societies in the Mississippi State Medical Association and the American Medical Association:

BOUNDS, GEORGE WILLIAM, Sturgis. Born Bailey, Miss., March 9, 1912; M.D., University of Tennessee College of Medicine, Memphis, 1953; interned Methodist Hospital, Memphis, Tenn.; elected June 12, 1962, by Northeast Mississippi Medical Society.

HAMMACK, BENJAMIN LESLIE, Coffeeville. Born Slate Springs, Miss., March 7, 1934; M.D., University of Mississippi School of Medicine, Jackson, 1958; interned Arkansas Baptist Hospital, Little Rock; elected July 2, 1962, by North Mississippi Medical Society.

DEATHS

BROWN, GEORGE LEMON, Tupelo. M.D., Tulane University School of Medicine, New Orleans, La., 1907; died June 9, 1962, aged 81.

BUTLER, EDWIN MOUZON, Natchez. M.D., Emory University School of Medicine, Atlanta, Ga., 1933; interned Georgia Baptist Hospital, Atlanta, one year; member of the American Heart Association; secretary of the Homochitto Valley Medical Society 1949-1950; died July 31, 1962, aged 52.

DAVIS, RALPH BUTLER, Waynesboro. M.D., University of Tennessee College of Medicine, Memphis, 1933; interned Baptist Memorial Hospital, Memphis, Tenn.; died July 3, 1962, aged 53.

GAUDET, LUCIEN SYDNEY, Natchez. M.D., Tulane University School of Medicine, New Orleans, La., 1901; intern and extern at the Eye, Ear, Nose and Throat Hospital, New Orleans, La.; on staff at Natchez General Hospital, Natchez Charity Hospital, and Natchez Sanatorium, 1922-1956; certified by the American Board of Otolaryngology in 1927; member of the American Academy of Ophthalmology and Otolaryngology, Southern Medical Association, and Fifty Year Club of MSMA; a past secretary of the Homochitto Valley Medical Society; died July 4, 1962, aged 84.

Book Reviews

A Textbook of Obstetrics. By Duncan E. Reid, M.D., William Lambert Richardson Professor of Obstetrics and Head of the Department of Obstetrics and Gynecology, Harvard University Medical School. 1087 pages. Philadelphia: W. B. Saunders Company, 1962. $18.50.

In this excellent volume, Dr. Reid has vastly expanded the common, limited concept of obstetrics and has demonstrated again the fact that conscientious practice of this specialty requires a practicing knowledge of many of the other major medical and surgical specialties. At the same time, Dr. Reid has deftly united into his study the allied and satellite basic sciences, including those of anatomy, physiology, embryology, and genetics.

The reader is led, quite logically, into the relationship of obstetrics with many genetic disorders, and with many associated medical and surgical problems. There is a comprehensive chapter on care and examination of the newborn, with a treatise by contributing authors on neonatal neurology and management and diseases of the newborn. Dr. Reid has even discussed the assessment of maternal and perinatal mortality, and finally there is included a proposed standardized obstetric record, complete with detailed illustrations.

The universality of this volume is exemplified in its painstaking detailing of numerous complications and diseases of pregnancy, some of which, such as Mediterranean (Cooley's) anemia, seem to have a distinct geographical flavor (although, as Dr. Reid points out, this disease is not uncommonly observed in his clinic).

References are extensive and vast in number (following one chapter no less than 274 references are given). In addition, there is a full page listing of suggested reading at the book's end for those wishing more armchair material.

As to the material included, there is not much room for controversy. The contents are quite orthodox and accepted in most instances, and certainly not often disputable. Dr. Reid's style is clear and concise, although predominantly academic in expression. He and his several contributing authors write for both clinician and student, and for those desiring source material this volume should prove a veritable gold mine.

Dr. Reid has fairly presented the *raison d'etre* of his writing in the preface, and one should not begin this volume without a thoughtful perusal of these comments. Certain questions are raised and answered as to the motivation and ultima ratio behind this volume, and the philosophies and rationale presented by Dr. Reid are most interesting and elucidating.

From the viewpoint of a practitioner, we would consider this book a valuable reference in its content of both applied and basic science. We feel, however, that there is far too much material of advanced clinical application for the average medical school student.

I. C. Knox, Jr., M.D.

Early Detection and Diagnosis of Cancer. By Walter E. O'Donnell, M.D., visiting investigator, Sloan-Kettering Institute for Cancer Research, New York; Emerson Day, M.D., director, Strang Cancer Prevention Clinic, Memorial Hospital for Cancer and Allied Diseases, New York, and Louis Venet, M.D., associate director, Strang Cancer Prevention Clinic. 286 pages with 82 figures and three color plates. St. Louis: the C. V. Mosby Company, 1962. $12.00.

Every physician must be constantly aware of the possibility of cancer in each physical problem with which he is confronted. He must not only be aware of the possibility of the disease, but he also must be well informed of the rapidly changing diagnostic facilities available to him in making the diagnosis of cancer. This book is an excellent presentation of the symptoms and signs of cancer, as well as present day methods of detection and diagnosis.

In a complete system review, chapter by chapter, each malignant disease is discussed in its entirety as regards etiology, pathology, clinical manifestations and detailed steps in the diagnosis and management. Whenever there is controversy regarding treatment or diagnosis of precancerous lesions, the pros and cons are enumerated and an effort made to lead one to a working conclusion.

Clear, easily understandable illustrations as to all of the most recent diagnostic tests are given. Illustrative pictures of the various cancers are given in each chapter.

This book is an excellent postgraduate course in cancer for every practising physician and would make a worthwhile addition to one's medical library. It is recommended with enthusiasm.

R. J. Field, Jr., M.D.

Domestic Journal

Contrasting Behavior in Two Adolescent Girls with Poliomyelitis. J. R. Stiefel and F. Hogemann: Psychosomatics 2:453-459 (Nov.-Dec.) 1961.

Two 15-year-old white girls with anterior poliomyelitis were admitted within two days of each other to the ward and because of the serious and advanced disease were both placed in Drinker respirators. Neither of these patients had been immunized. The first patient was restless, demanding, and created many problems in management for the medical and hospital personnel. The second patient was passive, quite and compliant, was popular and liked by all medical and hospital personnel. After an initial period, the first patient regressed markedly in behavior, became most dependent and aggressive and her overall behavior was that of a much younger child than her chronological age.

The second patient used denial and repression to maintain her personality structure and was much admired by the attendants. During convalescence the first patient gradually reintegrated her personality, became diligent in rehabilitation activities, progressed rapidly in physiotherapy and was responsible largely for her own good rehabilitation. The second patient remained passive with little determination and was easily discouraged and made slow progress with an end point far short of that of her neighbor.

It was found that psychiatric consultation was very useful in the handling of both patients and counsel with the managing medical staff helped the first patient to channel her aggressive impulses into useful channels. It also helped the second patient to express her feelings about illness and to use these feelings about her own shattering illness constructively.

Margaret B. Batson, M.D.

Books Received

Journal MSMA has received the following books for review. Selections will be made for more extensive reviews in the interest of the readers and as space permits. Further information on the books listed will be furnished on request. Physicians are urged to submit reviews of additional books which, in their opinion, merit comment.

Textbook of Ophthalmology. By Francis Heed Adler, M.D., emeritus professor of ophthalmology, University of Pennsylvania Medical School. Seventh edition. Illustrated with 288 figures and 26 color plates. 560 pages. Philadelphia: W. B. Saunders Company, 1962. $9.00.

Diagnostic Tests in Infants and Children. By Hans Behrendt, M.D., associate in pediatrics, New York Medical College, Metropolitan Medical Center, New York City. Second edition. 617 pages with 73 illustrations and 117 tables. Philadelphia: Lea and Febiger, 1962. $15.00.

Interpretation of Signs and Symptoms in Different Age Periods: Pediatric Diagnosis. By Morris Green, M.D., associate professor of pediatrics, Indiana University School of Medicine, and Julius B. Richmond, M.D., professor and chairman of the Department of Pediatrics, State University of New York College of Medicine, Syracuse. Second edition. 541 pages. Philadelphia: W. B. Saunders Company, 1962. $13.00.

Psychological Development in Health and Disease. By George L. Engel, M.D., professor of psychiatry and associate professor of medicine, the University of Rochester School of Medicine and Dentistry. 435 pages. Philadelphia: W. B. Saunders Company, 1962. $7.50.

An Atlas of Head and Neck Surgery. By John M. Lore, Jr., M.D., attending surgeon, Good Samaritan Hospital, Suffern, New York. 490 pages with illustrations by Robert Wabnitz, director of medical illustration, University of Rochester, N. Y. Philadelphia: W. B. Saunders Company, 1962. $25.00.

Appraisal of Current Concepts in Anesthesiology. Edited by John Adriani, M.D., professor of surgery, Tulane University School of Medicine, clinical professor of surgery and pharmacology, Louisiana State University School of Medicine, director, Department of Anesthesiology, Charity Hospital of Louisiana. 279 pages. St. Louis: The C. V. Mosby Company, 1961. $7.75.

Committee Appointed To Study Interprofessional Code

A six-man committee, representing the Mississippi State Medical Association and the Mississippi State Bar, has been appointed to discuss the development of an interprofessional code.



Dr. George D. Purvis, left, chairman from MSMA, and Junior O'Mara, chairman from the Mississippi State Bar, discuss the plans of a six-man committee recently appointed to study the development of an interprofessional code.

This type of project has been successfully completed in many states and at national level by the American Medical Association and the American Bar Association, according to Dr. C. P. Crenshaw of Collins, MSMA president.

Physician members of the committee appointed by Dr. Crenshaw are Drs. George D. Purvis, chairman from MSMA; William O. Barnett, and William E. Lotterhos. Lawyer members appointed by C. Sidney Carlton of Sumner, president of the Mississippi State Bar, are Junior O'Mara, chairman from MSB; John A. Travis, Jr., and Erskine W. Wells. All members are from Jackson.

Dr. Landry Named To State Mental Board

Dr. Victor E. Landry of Lucedale has been appointed to the Board of Trustees of State Mental Institutions by Gov. Ross R. Barnett. He succeeds Dr. J. K. Avent, Sr., of Grenada, who resigned his six-year term ending in March of 1963.

Dr. Avent had been a member of the board since its creation in 1947 and its chairman since 1955.

Dr. Landry is vice president for the southern area for MSMA. He is a graduate of the Louisiana State University School of Medicine and was licensed to practice in Mississippi in 1948.

Other board members are Lester Clark of Hattiesburg, vice chairman; Dr. James Grant Thompson of Jackson, and Sam Long of Shelby. The board has supervision over the mental hospitals at Whitfield and Meridian and the Ellisville State School.

MAGP Slates September Meet

The Mississippi Academy of General Practice will open its 1962 annual assembly in Jackson Wednesday, Sept. 26. The two-day meet will be held at the Hotel Heidelberg.

Scientific sessions will make up the program for the two days with time off for the academy's annual banquet and dance on Wednesday and a luncheon on Thursday, according to Dr. Guy T. Vise, president.

Guest speakers for the assembly include Dr. William A. Sodeman, dean and professor of medicine, Jefferson Medical College, Philadelphia, Pa.; Dr. Robert D. Sloan, professor of radiology and chairman of the department, University of Mississippi School of Medicine; Dr. J. Elliott Scarborough, professor of surgery, Emory University, Atlanta, Ga.; Dr. E. Stanley Crawford, associate professor of surgery, Baylor University College of Medicine, Houston, Texas; Dr. Alex J. Steigman, chairman, Department of Pediatrics, University of Louisville School of Medicine, Louisville, Ky.; Dr. George A. Constant, Victoria, Texas, and Dr. Thomas E. Weiss, Department of Medicine, Ochsner Clinic, New Orleans, La.

Moderators for the meetings will be Dr. Robert Q. Marston, dean, University of Mississippi School for Medicine; Dr. J. Harvey Johnston, Jackson; Dr. J. R. Snavely, professor of medicine and chairman of the department, University of Mississippi School of Medicine, and Dr. W. L. Jaquith, director of Mississippi State Hospital, Whitfield.

Dr. C. D. Taylor of Pass Christian will be the master of ceremonies for the banquet and Dr. J. P. Culpepper Jr., of Hattiesburg, vice president of AMA, will give the invocation. Guest speaker for the banquet will be Chester H. Lauch, executive assistant, Continental Oil Company, Houston, Texas, and guest speaker for the Thursday luncheon will be Dr. Albert E. Ritt, president-elect of AAGP, St. Paul, Minnesota. Dr. John R. Bane, president-elect of MAGP will serve as master of ceremonies for the luncheon and Dr. William E. Lotterhos will give the invocation.

Information regarding the assembly may be obtained from Miss Louise Lacey, executive secretary, Mississippi Academy of General Practice, P.O. Box 1435, Jackson, Miss.

New Nurse Facility Set for UMC

The newest addition to the University of Mississippi School of Medicine growing plant complex will be a $330,000 nurse training facility. The announcement said that the two story structure will be financed with two-to-one federal funds matched with state monies. Mississippi architect W. R. Allen is designing the building.

Dean Christine Oglevee, nursing chief, said, "This will allow a tremendous step forward in the growth of our nursing school." The university offers the only degree nursing curriculum in the state and plans to add a master's degree program in 1963.

The new nurse training facility brings to three the total of campus additions actually begun or authorized since last year. Construction is underway on the eight story research wing which will offer space for 150 laboratories within its 122,000 square feet. It will cost $3 million.

In July, the Community Facilities Administration approved a $506,000 loan for erection of a men's dormitory and an apartment building for married students. The recent neuropsychiatric unit provides 27 beds and was built for $330,000.

Plans were announced in early summer for an on-campus $2.1 million, 100 bed children's hospital for private and service patients. Financing is proposed by providing $700,000 locally from private sources for matching with $1.4 million federal funds.

Now open is the $14 million Veterans Administration hospital adjacent to the university medical complex which is affiliated with the school in postgraduate training programs.

Dr. T. M. Riddell Awarded Fifty Year Club Insignia



Dr. T. M. Riddell of Shaw was awarded the certificate and pin of MSMA's Fifty Year Club during the April meeting of the Delta Medical Society. Shown with him is Mrs. Riddell.

A 1911 graduate of the University of Tennessee College of Medicine, Dr. Riddell interned at City Hospital in Memphis. He is an emeritus member of MSMA and a 1961 recipient of the University of Tennessee Golden "T" award, which is given for 50 years of medical service.

Medicare Chief Assumes New Duties

According to a July 18 announcement, Brigadier General W. D. Graham (MC) U.S.A., executive director of the Office for Dependents' Medical Care has assumed new duties as commanding general, U. S. Army Tripler General Hospital, Hawaii.

Colonel Bryan C. T. Fenton (MC) U.S.A., will succeed General Graham in the Medicare post.

Sixteen Named To AMA-ERF Committee

Sixteen physicians have been appointed to MSMA's Committee on American Medical Association Education and Research Foundation by Dr. C. P. Crenshaw, association president.

Serving with Dr. Raymond F. Grenfell of Jackson, chairman, will be Drs. Richard J. Field, Jr., Centreville; David M. Segrest, Port Gibson; G. Lacey Biles, Sumner; Archibald C. Hewes, Gulfport; Lyne S. Gamble, Greenville; Barry P.

McIntosh, Hernando; A. C. Bryan, Jr., Meridian; Bruce M. Kuehnle, Natchez; W. E. Caldwell, Baldwyn; C. M. Murry, Jr., Oxford; J. K. Avent, Sr., Grenada; James M. Howell, Picayune; Willis Walker, Jr., Hattiesburg; Jim C. Barnett, Brookhaven; J. A. K. Birchett, Vicksburg.

AMA-ERF was formed in January 1962 by the merger of the American Medical Education Foundation and the American Medical Research Foundation. It has been incorporated under the laws of Illinois as an educational and scientific organization. All contributions made to it are fully tax deductible.

A five-prong program has been established for early foundation activities. It includes unrestricted financial assistance to medical schools, a medical journalism fellowship program, a research grants program, study of perinatal mortality and morbidity, and a study of continuing medical education. The foundation will also endeavor to raise funds for medical scholarships and for loans to medical students, interns, and residents.

Trustees Chart MSMA Course For 1962-63

The state medical association's Board of Trustees charted further action for the 1962-63 year during the regular summer meeting at Jackson on Aug. 9. Board chairman H. H. McClanahan, Jr., Columbus, said that the heavy agenda centered around following up actions of the 94th Annual Session, association policy, program plans, and the JOURNAL MSMA. All Board members attended.

The trustees studied reports on internship and medical licensure, additional residency programs, a project of a joint interprofessional code among physicians and attorneys, ionizing radiation control, legislation, professional liability insurance, and scientific activities for the 95th Annual Session set for May 13-16, 1963, at Biloxi.

Participating in the meeting were Drs. McClanahan, district 3, chairman; John B. Howell, Jr., Canton, district 5, vice chairman; C. D. Taylor, Jr., Pass Christian, district 9, secretary; Charles W. Patterson, Rosedale, district 1; Joseph B. Rogers, Oxford, district 2; Mal S. Riddell, Jr., Winona, district 4; Lamar Arrington, Meridian, district 6; William E. Moak, Richton, district 7; and Everett H. Crawford, Tylertown, district 8.

Association President C. P. Crenshaw, Collins, headed general officers meeting with the board among whom were Drs. John G. Archer, Greenville, president-elect; C. G. Sutherland, Jackson, secretary-treasurer; B. B. O'Mara, Biloxi, speaker of the House of Delegates, and Howard A. Nelson, Greenwood, vice speaker of the House. Publications Committee Chairman Lawrence W. Long, Jackson, was present during conferences and reporting on the JOURNAL MSMA.

The trustees gave tentative approval to a draft of a proposed permanent Kerr-Mills law for Mississippi, a matter under study since formal approval of the program at the 1961 annual session.



MSMA's 1962 Board of Trustees and general officers met at Jackson Aug. 9. Clockwise around the conference table are Drs. Sutherland, Howell, McClanahan, Taylor, Crenshaw, Nelson, Arrington, Moak, Riddell, Crawford, O'Mara, Archer, Patterson, and Rogers.

Would-be Burglars Take Night Tour of MSMA Offices

Burglars with unexplained but obviously selective motives gained forced entry into MSMA's Central Office Headquarters Building the night of July 27, rifled desks and storage fixtures, and departed as mysteriously as they had come. Apparently nothing was taken from the association.

Investigating officers from the Jackson police department said that entry was made by forcing a window on the east side of the building. No fingerprints were found which could be linked to the intruders. Discovery of the illicit foray was made by Rowland B. Kennedy, executive secretary, and Betty M. Sadler, editorial assistant, on opening the building Saturday morning, July 28.

Prime target was the comptroller's office where vouchers and papers were widely scattered in an apparently futile search for money. MSMA handles virtually no cash, since transactions are by check. Mr. Kennedy said that new and additional security measures have been taken to protect the association's property. The burglary was the first in the six years of occupancy of the building.

Current AMA Film Catalog Now Available

The 1962 edition of the AMA Medical Health Film Library catalog is now available for distribution by the Medical Motion Pictures and Television Section of the Department of Scientific Assembly.

This expanded catalog contains information about 173 films for professional audiences and 82 films to be used by physicians in addressing lay groups such as PTA, church organizations, and service clubs. A description of the content of each film, running time, service charges, and instructions for ordering are included in this catalog.

The services of the AMA film library are available to physicians, medical societies, hospitals, medical schools and other medical groups. Copies may be obtained, without charge, from the American Medical Association, Medical Motion Pictures and Television Section, Department of Scientific Assembly, 535 North Dearborn St., Chicago 10, Ill.

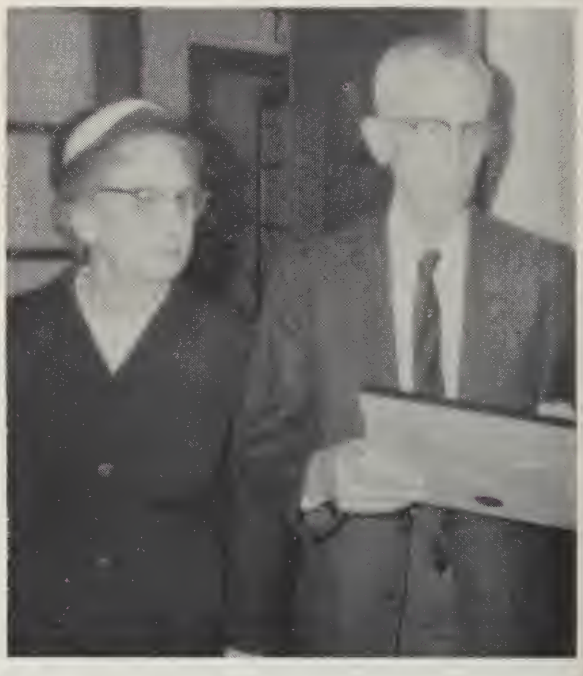
AMA Schedules Medicolegal Symposium

The American Medical Association has scheduled a Medicolegal Symposium for March 8 and 9, 1963, at the Americana Hotel in Miami Beach. Approximately 850 to 1,000 physicians and attorneys are expected to attend, according to C. Joseph Stetler, director of the AMA Legal and Socioeconomic Division.

For the past eight years AMA has conducted three medicolegal meetings every two years in different sections of the country. The 1963 meet is a departure from this schedule and will take the place of three separate meetings.

Information regarding advance registration and program plans will be released at a later date.

Dr. T. Y. Fleming Receives Fifty Year Club Certificate



Dr. T. Y. Fleming of Minter City, a new member of MSMA's Fifty Year Club, looks over his certificate with Mrs. Fleming. The presentation was made at the April meeting of the Delta Medical Society.

A graduate of the University of Tennessee College of Medicine, Dr. Fleming began his practice in 1911 in Durant. He moved to Minter City in 1913. Dr. Fleming served as president of the Leflore County Medical Society in 1917 and received the Golden "T" award from the University of Tennessee in 1961 for 50 years of medical service.



Members of the Council on Scientific Assembly met July 19 to plan the 95th Annual Session. From left to right seated are Drs. Lockard, Crenshaw, and Sutherland. From left to right standing are Drs. Bane, Covington, Riecken, Wesson, Butler, Miller, Bush, and McKinnon.

Council on Scientific Assembly Sets Schedule for 95th Meet

MSMA's Council on Scientific Assembly, which met July 19 in Jackson, has scheduled four days of meeting activity for the association's 95th Annual Session.

The 1963 meet will be held in Biloxi with headquarters at the Buena Vista Hotel.

The council unanimously adopted the following schedule for the session:

Monday, May 13	Afternoon, House of Delegates
Tuesday, May 14	Morning, Section on Medicine
	Afternoon, Sections on Surgery and Preventive Medicine
Wednesday, May 15	Morning, Special Feature, to be announced
	Afternoon, Sections on Pediatrics and Ob-Gyn
Thursday, May 16	Morning, Sections on General Practice and EENT
	Afternoon, House of Delegates

Dr. C. G. Sutherland, chairman of the council, announced that the deadline for final section programs and photographs of out-of-state essayists would be Jan. 7, 1963, and the deadline for abstracts for papers would be March 1, 1963.

Those present at the meeting in addition to Dr. Sutherland were Drs. Thomas W. Wesson of Tupelo, chairman, Section on EENT; John R. Bane of Jackson, secretary, General Practice; Joe S. Covington of Meridian, chairman, Section on Medicine; Blanche Lockard of Jackson, chairman, Section on Ob-Gyn; Joseph B. Miller, of Jackson, chairman, Section on Pediatrics; Joseph G. McKinnon of Hattiesburg, chairman, Section on Surgery; Eugene A. Bush of Laurel, secretary, Section on Surgery; W. E. Reicken of Koscisuko, chairman, Section on Preventive Medicine, and the late Edwin M. Butler of Natchez, secretary, Section on Preventive Medicine. Dr. Butler died July 31 following a cerebral hemorrhage.

Others attending the meeting were Dr. C. P. Crenshaw of Collins, president of MSMA; Rowland B. Kennedy of Jackson, executive secretary; Charles L. Mathews of Jackson, assistant executive secretary, and Mrs. Margie Wilkins of Jackson, staff secretary.

Dr. Crenshaw To Address A&RF Meet

Dr. C. P. Crenshaw of Collins, MSMA president, will present the banquet address at the Sept. 20 meeting of the Mississippi Chapter, Arthritis and Rheumatism Foundation. Dr. Crenshaw will speak on quackery in the field of arthritis.

The meeting will begin at 10 a.m. with an open board of director's meeting. The morning agenda includes presentation of committee reports and discussion of the 1962-63 campaign. Scientific and lay sessions are scheduled for the afternoon.

State officers of the A&RF are Mrs. Elizabeth Wates, chairman; Dr. Laurence J. Clark, Vicksburg, vice chairman; W. F. Goodman, Jackson, treasurer; Dr. Edward A. Attix, Hattiesburg, secretary; Dr. A. Gayden Ward, Jackson, chairman medical and scientific committee, and Secretary of State Heber Ladner, state campaign chairman.

AMA Dues to Go To $45 in 1963

At the New York Annual Meeting, June 1961, the AMA House of Delegates approved a $20 increase in dues over the old level of $25 in two successive steps of $10 each. Under this formula, AMA dues for the current year are $35 and 1963 dues will be $45.

Secretaries of component medical societies have been requested to remind members of this final step in the increase. Dues of the American Medical Association (or a legal exemption therefrom) are mandatory upon members of MSMA in accordance with Section 5, Chapter I, By-Laws of the association.

Cystic Fibrosis Clinic Established at UMC

A Cystic Fibrosis Clinic is being established at the University Medical Center, supported in part by a grant from the National Cystic Fibrosis Research Foundation to the Department of Pediatrics. For the present, the clinic will meet at 8 a.m. the second Tuesday each month.

In common with other similar units financed by the Foundation in connection with teaching hospitals, the clinic will serve as a center for care, teaching, and research according to Dr. Blair Batson, department chairman.

It offers interested physicians consultation in the diagnosis and management of their patients with cystic fibrosis.

Both private and service patients may attend the clinic. Private patients will be asked to pay fees for initial and subsequent visits to cover the costs of a sweat test, chest x-ray, sputum culture and sensitivity, routine lab work, liver function tests, and pulmonary function studies when indicated. A schedule of the fees for private patients is available upon request.

Charges for service patients will be in accordance with present University Medical Center policy.

A limited number can be accepted each month by appointment only. Appointments may be made by writing directly to the Cystic Fibrosis Clinic, University Medical Center, Jackson, Miss.

State Blue Plans Report Membership

Mississippi Hospital and Medical Service reported membership of over 369,000 as of July. This is an increase of 227,000 over the 1952 totals.

Mississippi Blue Cross-Blue Shield now serves over 3,000 state firms and organizations and over 40,000 of the state's over-65 citizens. Ten years ago, benefits for members' health care were paid at an annual rate of just over $1,500,000. In 1961, almost $13,000,000 was paid in benefits giving a total of $75 million in benefits paid since the founding of the service 14 years ago.

In 1961 approximately one out of every two members enrolled in the State Blue Cross-Blue Shield plans had a hospital, surgical, or medical bill paid. It paid out in member benefits 87.75 per cent of its 1961 earned income. The remaining 12.25 per cent was used to cover administrative expense, tax assessments, and reserves.

Mississippi Blue Cross-Blue Shield has developed a three-step master health plan package to meet the increasing costs which accompany new medical progress and techniques. Step one includes broader basic benefits, step two is supplemental coverage with x-ray and laboratory benefits, accidental injury benefits and major medical benefits up to $5,000, and step three is the Catastrophic Illness Endorsement designed to give the broader benefits required by cancer and ten other diseases.

State Cancer Society Schedules September Meet

The Mississippi Division, American Cancer Society, will hold its 1962 annual meeting on Sept. 20 at the King Edward Hotel, Jackson.

Guest speakers and their topics will be Dr. Albert L. Meena, Jackson, "Cancer of the Breast"; Dr. Richard H. Clark, Jr., Hattiesburg, "Cancer of the Colon and Rectum"; Dr. Claude G. Callendar, Jackson, "Uterine Cancer," and Dr. Warren N. Bell, Jackson, "Newer Advances in Chemotherapy."

Dr. Forrest G. Bratley of Jackson is president of the division.

State Morbidity Reported Through July 20

The Mississippi State Board of Health reports the following occurrence of morbidity for 1962 through the 29th week of the year, ending July 20, 1962. Case totals reported are shown opposite the disease condition.

Tuberculosis, pul.	365
Tuberculosis, O.F.	25
Typhoid Fever	2
Salmonella Infections	5
Brucellosis	1
Dysentery	
Amebic	30
Bacillary	24
Dysentery, NOS	1
Food poisoning, NOS	3
Septicemia, Strep.	4
Septicemia, Staph.	38
Leptospirosis	2
Toxoplasmosis	1
Staphylococcus infection	7
Diphtheria	6
Meningococcus infection	
Meningitis	11
Meningococcemia	3
Meningitis, O.F.	40
Other complications of smallpox vaccination	3
Tularemia	2
Tetanus	8
Encephalitis, infectious	15
Mononucleosis, infectious	44
Diarrhea of newborn	6
Hepatitis, infectious	561
Hepatitis, serum	1
Helminthic infections	
Hookworm	539
Ascariasis	208
Strongyloides	30
Moniliasis	1
Actinomycosis	1
Other Cestode Infest. (HN)	1
Histoplasmosis	3
Other fungus infections	1
Streptococcus infections	
Scarlet fever	160
Strep throat	2,198
Malaria	1
Rheumatic heart	3
Rheumatic fever	2
Puerperal sepsis	1
Pertussis	26
Measles	2,680
Chickenpox	721
Mumps	311
Influenza	11,193
Gonorrhea	2,814
Syphilis	
Early	98
Late	184

Medicare Eligibility Ceases For State NG Units

Fourteen Mississippi National Guard units from 17 state communities were released from federal service during August. Each was called up in the October 1961 Berlin crisis. Patient care benefits under the Dependents' Medical Care Act—the original Medicare program—were terminated for spouses and eligible children of the guardsmen on the date of release to nonfederal status.

Physicians rendering care to these dependents should date any claims accordingly, spokesmen for the association said. The service termination particularly applies to antepartum care in the management of pregnancy.

Units released are:

148th Engr. Co., Pascagoula, August 3.

367th Ord. Co., Natchez, August 5.

Cos. A, B, C, and D, 223rd Engr. Bn., Bruce, Charleston, Webb, Houston, Clarksdale, and West Point, August 9.

156th Engr. Co., Yazoo City, August 8.

1065th Trans. Co., Poplarville, August 8.

114th M.P. Co., Jackson, August 8.

134th Surg. Hosp., Jackson, August 9.

134th Trans. Co., Bay St. Louis, August 12.

123rd Med. Co., Meridian, August 13.

153rd Tac. Recon. Sq., Meridian, August 20.

Noted Medical Illustrator Dies Aug. 1

Mrs. Annette Smith Burgess, 66, internationally known medical illustrator of Johns Hopkins University Medical School, died Aug. 1 at the University of Mississippi Hospital in Jackson following an illness of several months.

She was a native and life-long resident of Baltimore until April 1961 when she moved to Jackson. A student of the noted medical illustrator, Max Brodel, she was associated with the Wilmer Ophthalmological Institute, Johns Hopkins University School of Medicine, from 1925 until her retirement July 1, 1961. She was listed in the Who's Who of Women in America.

She leaves her mother, Mrs. Richard H. Smith, Jackson, and a brother, Richard B. Smith, Jackson.

PERSONALS

R. H. Brumfield has been named chief of surgery for the proposed 1½-million-dollar, 100-bed McComb hospital. Dr. Brumfield was chosen to head the hospital medical staff at a recent meeting of the Pike County Medical Association. He and Dr. Verner Holmes are medical members of the eight-man Hospital Steering Committee.

Charles W. Campbell has announced his association with Paul B. Brumby in Lexington. Dr. Campbell has recently finished his internship at the Mississippi Baptist Hospital following his graduation in 1961 from the University of Mississippi School of Medicine.

Thomas A. Currey, who has been practicing in Amory for the past two and one-half years, has begun a residency in ophthalmology in Memphis at the John Gaston Hospital and the Memphis Eye, Ear, Nose, and Throat Hospital.

Kendall Gregory of Gulfport has announced the association of Edmund H. Crane, Jr., in the practice of internal medicine.

William B. Gifford and George W. Truett have opened offices in Europa in the clinic formerly operated by James E. Booth. Dr. Booth has begun a residency in surgery at the University of Mississippi Medical Center. Both Dr. Gifford and Dr. Truett are graduates of the University of Mississippi School of Medicine and served their internship at the University Hospital.

T. Roger Kilpatrick, Jr., has opened practice in Noxapater in the office formerly occupied by his grandfather, the late Dr. T. L. Kilpatrick, who practiced in the area for 60 years. A June 1961 graduate of the University of Mississippi School of Medicine, Dr. Kilpatrick interned at Memorial Hospital in Savannah, Ga.

J. Walton Lipscomb of Jackson has announced the association of James P. Spell in the practice of surgery.

W. C. Pool, who opened practice in Cary in 1920 and has practiced in that area since that time, was honored at an open house on July 8.

T. E. Ross, Jr., who has practiced medicine in Hattiesburg since 1918, has announced the association of his son, T. E. Ross, III. Dr. Ross, III, is the grandson of the late Dr. T. E. Ross, a pioneer surgeon of Hattiesburg. A 1957 graduate of the Tulane University School of Medicine, Dr. Ross interned at Charity Hospital in New Orleans and completed his residency in general surgery on the Tulane Surgical Service at Charity Hospital.

A. L. Thaggard of Madden has announced the association of A. L. Thaggard, Jr., in the practice of general medicine and surgery. A 1961 graduate of the University of Mississippi School of Medicine, Dr. Thaggard has recently completed his internship at the Methodist Hospital in Memphis.

A. Gayden Ward has announced the association of Dr. Howard C. Friday in the practice of internal medicine.

David B. Wilson, director of the University Hospital, was released from active military duty on Aug. 7. Dr. Wilson, carrying the rank of colonel, is commanding officer of the 134th Surgical Hospital Unit which, after one year of federal service, has reverted to its Mississippi National Guard status.

Wallie B. Witte, who has practiced in Leland since 1945, has moved to Dallas where he will be associated with the Fondren Memorial Health Center at Southern Methodist University. Dr. Witte was the fifth generation of his family to practice medicine in Leland. He was chief of staff of Leland City Hospital, which he helped establish, and a member of Delta Medical Society, MSMA, and the American Academy of General Practitioners.



in 1948
unique therapeutic achievement

in 1962
universal therapeutic acceptance

Dramamine® in vertigo

brand of dimenhydrinate

world standard for control of vertigo, nausea and emesis associated with

■ Motion Sickness ■ Postoperative States ■ Labyrinthitis ■ Hypertension ■ Radiation Sickness ■ Ménière's Syndrome ■ Postfenestration Syndrome ■ Antibiotic Therapy ■ Migraine Headache ■ Pregnancy ■ Narcotization ■ Electroshock Therapy

Tablets/Liquid/Ampuls (for I. M. or I. V. use)/Supposicones®

SEARLE

Research in the Service of Medicine



from boutonneuse fever in Afric

Whether treating boutonneuse fever, bronchopneumonia, or a host of other infections, physicians throughout the world continue to rely on the effectiveness, relative safety, and exceptional toleration of Terramycin in broad-spectrum antibiotic therapy. This continuing confidence is based upon thousands of published clinical reports and successful experience in millions of patients. *The next infection you see will more than likely be "Terra-responsive."*

...e for the world's well-being® Pfizer PFIZER LABORATORIES Division, Chas. Pfizer & Co., Inc. New York 17, New York



IN BRIEF The dependability of Terramycin in daily practice is based upon its broad range of antimicrobial effectiveness, excellent toleration, and low toxicity. As with other broad-spectrum antibiotics, overgrowth of nonsusceptible organisms may develop. If this occurs, discontinue the medication and institute appropriate specific therapy as indicated by susceptibility testing. Glossitis and allergic reactions to Terramycin are rare. For complete information on Terramycin dosage, administration, and precautions, consult package insert before using.

More detailed professional information available on request.

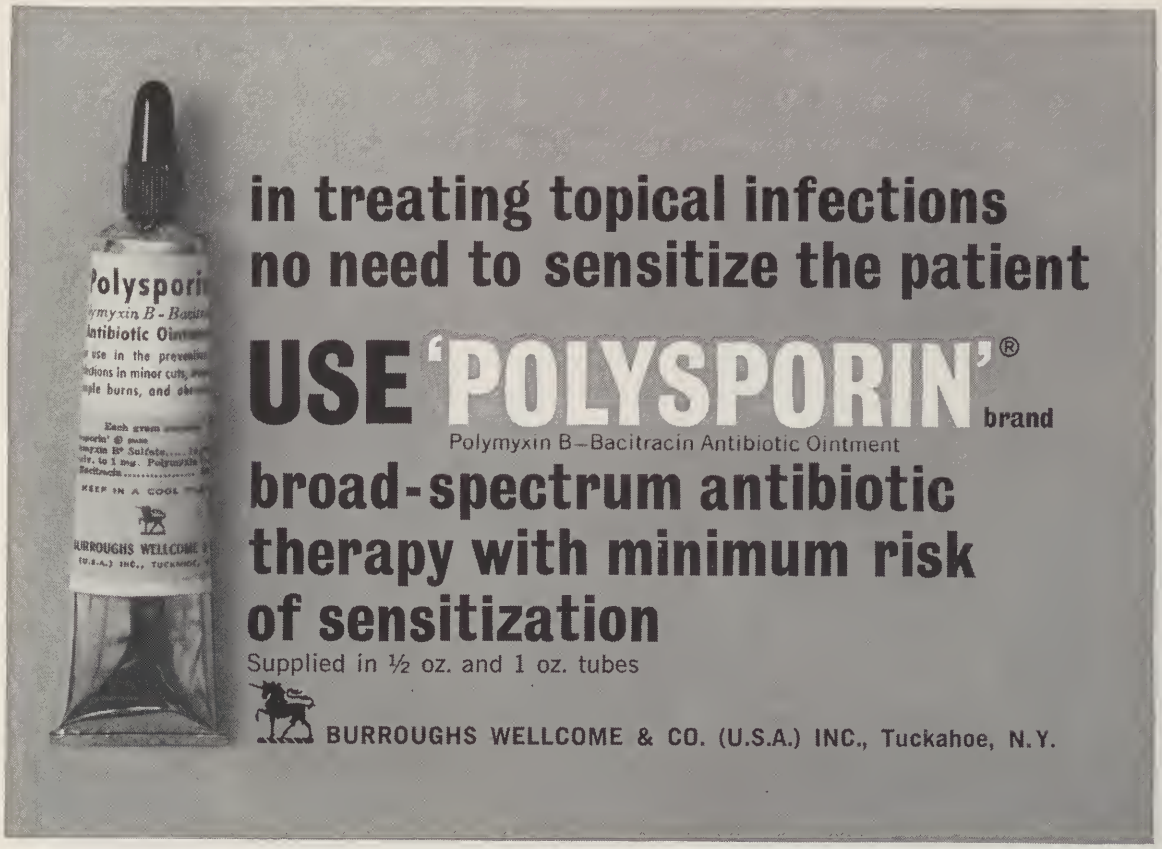
Boutonneuse fever is a tick-borne, acute, febrile disease often affecting children. The bite site becomes a small, necrotic ulcer. A striking macular or maculopapular eruption develops on the trunk, palms and soles. Onset is sudden, with chills, high fever, violent headache and lassitude. The high temperature—up to 103° F.—characteristic of both boutonneuse fever and bronchopneumonia, drops rapidly following initiation of Terramycin therapy.

to bronchopneumonia in Mississippi

BRAND OF OXYTETRACYCLINE

Terramycin® capsules • syrup • pediatric drops
intramuscular solution • intravenous

Also available with nystatin as TERRASTATIN® (capsules and oral suspension)



APPALACHIAN HALL

ESTABLISHED — 1916

ASHEVILLE NORTH CAROLINA



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.

Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.

Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

WM. RAY GRIFFIN, JR., M.D.
ROBERT A. GRIFFIN, M.D.

MARK A. GRIFFIN, SR., M.D.
MARK A. GRIFFIN, JR., M.D.

For rates and further information, write: APPALACHIAN HALL, ASHEVILLE, N. C.



Relieves Anxiety and Anxious Depression

The outstanding effectiveness and safety with which Miltown relieves anxiety and anxious depression—the type of depression in which either tension or nervousness or insomnia is a prominent symptom — has been clinically authenticated time and again during the past six years. This, undoubtedly, is one reason why physicians still prescribe meprobamate more often than any other tranquilizer in the world.

Clinically proven in over 750 published studies

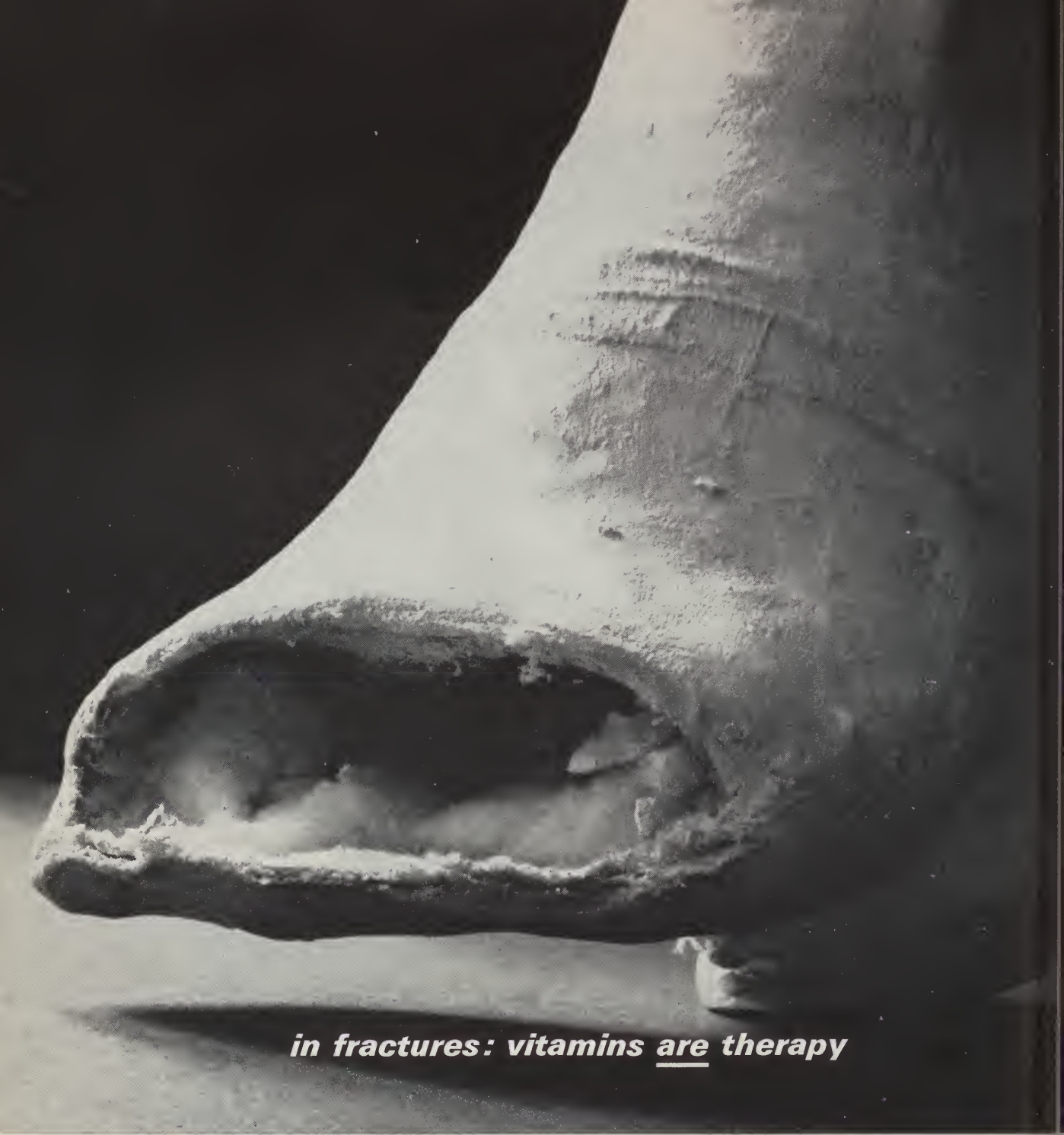
1. Acts dependably — without causing ataxia or altering sexual function
2. Does not produce Parkinson-like symptoms, liver damage or agranulocytosis
3. Does not muddle the mind or affect normal behavior

Miltown®
meprobamate (Wallace)

Usual dosage: One or two 400 mg. tablets t.i.d.
Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50. Also as MEPROTABS® — 400 mg. *unmarked,* coated tablets; and in *sustained-release* capsules as MEPROSPAN®-400 and MEPROSPAN®-200 (containing respectively 400 mg. and 200 mg. meprobamate).

WALLACE LABORATORIES / *Cranbury, N. J.*

CM-6709



Few factors are more fundamental to tissue and bone healing than nutrition. Therapeutic allowances of B and C vitamins are important for rapid replenishment of vitamin reserves which may be depleted by the stress of fractures. Metabolic support with STRESSCAPS is a useful adjunct to an uneventful recovery. Supplied in decorative "reminder" jars of 30 and 100.

Each capsule contains:	
Vitamin B_1 (Thiamine Mononitrate)	10 r
Vitamin B_2 (Riboflavin)	10 r
Niacinamide	100 r
Vitamin C (Ascorbic Acid)	300 r
Vitamin B_6 (Pyridoxine HCl)	2 r
Vitamin B_{12} Crystalline	4 mcg
Calcium Pantothenate	20 r

Recommended intake: Adults, 1 capsule da
or as directed by physician, for the treatm
of vitamin deficiencies.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N.Y.

STRESSCAPS®

Stress Formula Vitamins Lederle

Control Constipation Without Interference

PRULET®



A MILD REFLEX ACTING LAXATIVE...

does not interfere with other conditions under treatment.

The active ingredient of Prulet,® Bis(p-acetoxyphenyl) -oxindole, is analogous to a substance found in prunes. Completely recoverable from the feces, it has no deleterious effect on the vital organs. It is completely free from side effects, such as coloring of the urine, hyperemia and flatulence. During lactation no portion of the active ingredient of Prulet® appears in the milk and it has no effect on the nursing infant.

PRULET®...

provides therapeutic effectiveness with milligram dosage.

EASY TO TAKE: Prulet® tablets are small, odorless, and tasteless.

SUPPLIED: Bottles of 60.

EACH TABLET CONTAINS:
Bis (p-acetoxyphenyl)-oxindole . . . 5 mg

DOSAGE: One or two tablets before retiring until regularity is achieved or as directed by a physician.

PRECAUTIONS: Presence of nausea, vomiting, abdominal pains, or other symptoms of appendicitis.

COMPLETE LITERATURE AND SAMPLES UPON REQUEST

Mission Pharmacal Co.
SAN ANTONIO 6, TEXAS

PR-61



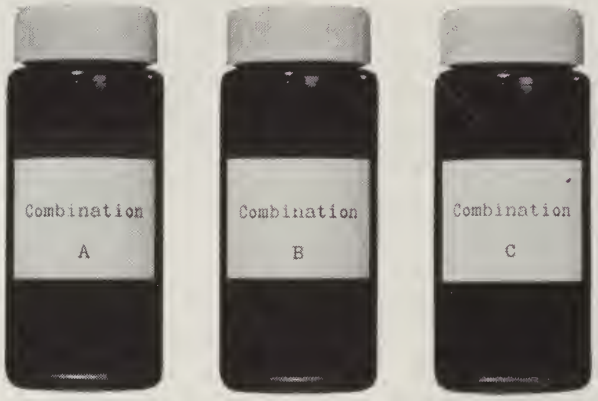
Think Clean!

Detergent, mucolytic, antibacterial, penetrating... qualities that establish Trichotine as a leading vaginal cleanser—both as a therapeutic measure unto itself, and as a cleansing adjunct to therapy.[1-3] A detergent, Trichotine penetrates the rugal folds, removes mucus debris, vaginal discharge, and cervical plugs.[1-4] Surface tension is 33 dynes/cm. (vinegar is 72 dynes/cm.). Trichotine relieves itching and burning—is virtually non-irritating—leaves your patient feeling clean and refreshed. It establishes and maintains a normal, healthy vaginal mucosa in routine vaginal cleansing, as well as in therapy. Whenever you think of a vaginal irrigant, think of the detergent cleansing action of Trichotine.

detergent action
for vaginal irrigation Trichotine®
POWDER

ACTIVE INGREDIENTS: Sodium lauryl sulfate, sodium perborate, sodium borate, thymol, eucalyptol, menthol, methyl salicylate. AVAILABLE: In jars of 5, 12 and 20 oz. powder. REFERENCES: 1. Stepto, R. C., and Guinant, D.: J. Nat. M.A. 53:234, 1961. 2. Karnaky, K. J.: Medical Record and Annals 46:296, 1952. 3. Folsome, C. E.: Personal Communication. 4. MacDonald, E. M., and Tatum, A. L.: J. Immunology 59:301, 1948.

THE FESLER COMPANY, INC., KENILWORTH, NEW JERSEY



These leading antihypertensive combinations are practically all alike.



This one is different...

because Ser-Ap-Es offers a unique benefit which makes blood pressure control more certain: the central and peripheral antihypertensive actions of Apresoline. By adding Apresoline to the regimens of their patients, Dupler *et al*[1] succeeded in bringing blood pressure down after rauwolfia-diuretic therapy failed. Using Ser-Ap-Es, Hobbs[2] reduced average blood pressure from 175/100 mm. Hg to 148/85 mm. Hg in 74 hypertensive patients. Side effects? Rarely a problem with Ser-Ap-Es because effective dosage is low.

SUPPLIED: SER-AP-ES Tablets, each containing 0.1 mg. SERPASIL® (reserpine CIBA), 25 mg. APRESOLINE® hydrochloride (hydralazine hydrochloride CIBA), and 15 mg. ESIDRIX® (hydrochlorothiazide CIBA). For complete information about Ser-Ap-Es (including dosage, cautions, and side effects), see current Physicians' Desk Reference or write CIBA.

1. Dupler, D.A., Greenwood, R.J., and Connell, J.T.: J.A.M.A. 174:123 (Sept. 10) 1960.
2. Hobbs, L.F.: To be published. 2/3026MB

CIBA
SUMMIT, N.J.



PERCODAN BRINGS *SPEED*...DURATION... AND DEPTH TO ORAL ANALGESIA

in the wide middle region of pain

PERCODAN®

(Salts of Dihydrohydroxycodeinone and Homatropine, plus APC) TABLETS

fills the gap between mild oral and potent parenteral analgesics

■ acts in 5-15 minutes ■ relief usually lasts 6 hours or longer ■ constipation rare ■ sleep uninterrupted by pain

Literature on request

Endo®

ENDO LABORATORIES
Richmond Hill 18, New York

AVERAGE ADULT DOSE: 1 tablet every 6 hours. May be habit-forming. Federal law allows oral prescription. *Also Available:* Percodan®-Demi: the complete Percodan formula, but with only half the amount of salts of dihydrohydroxycodeinone and homatropine.

Each scored, yellow Percodan* Tablet contains 4.50 mg. dihydrohydroxycodeinone HCl, 0.38 mg. dihydrohydroxycodeinone terephthalate (warning: may be habit-forming), 0.38 mg. homatropine terephthalate, 224 mg. acetylsalicylic acid, 160 mg. acetophenetidin, and 32 mg. caffeine.

*U.S. Pats. 2,628,185 and 2,907,768

END BATTERY REPLACEMENTS
Newest Welch Allyn

RECHARGEABLE HANDLE

Fits all WA

medium-handle set cases



- Provides satisfactory illumination longer between charges than standard medium batteries.
- No separate charger.
- Cannot overcharge.
- May be recharged thousands of times.
- Will never corrode.
- Fits all WA instruments.

No. 717 Rechargeable battery handle $20.00
No 717-B Extra bottom section 14.50

Also available as part of combination sets.

KAY SURGICAL, Inc.
663 NORTH STATE STREET
JACKSON, MISS., FL 2-4043

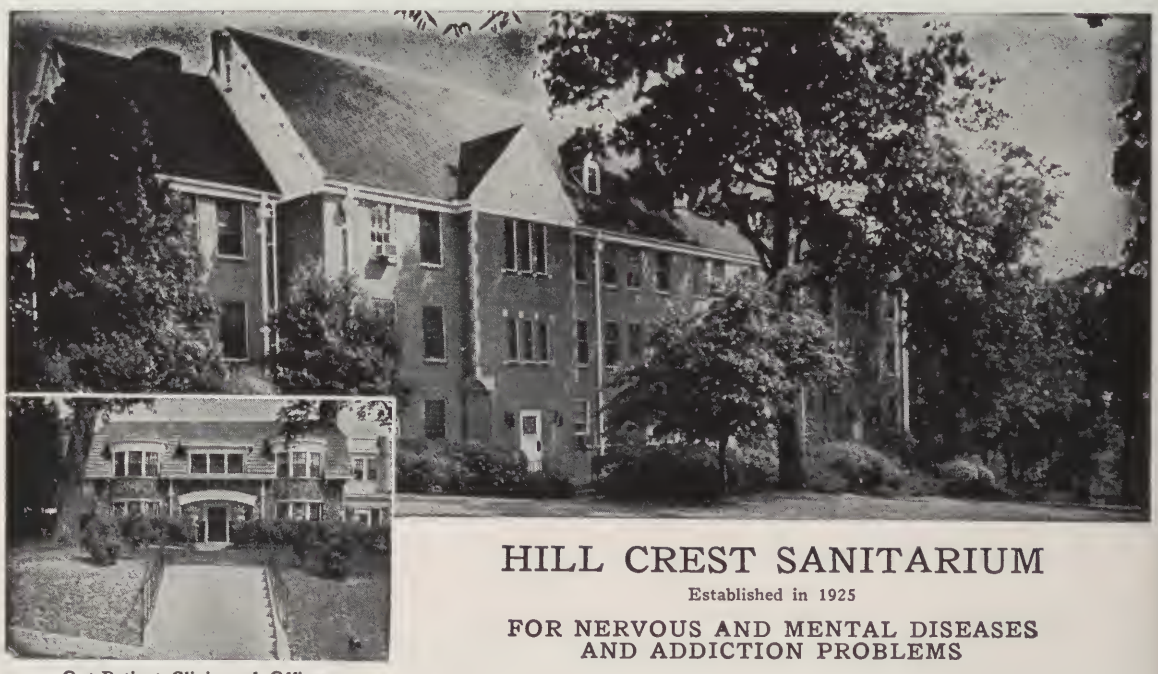
AHA Publishes Guide For Cardiovascular Clinic

Guidelines for establishing and improving cardiovascular clinics are provided in a newly revised booklet, "Recommended Standards for Cardiovascular Clinics—A Guide for Clinic Committees," just issued by the American Heart Association.

The 24-page booklet, issued in 1949 and first revised in 1955, defines the functions of a cardiovascular clinic in terms of (1) service to the patients, (2) education not only of professional staff but of patients and their families, and (3) research. It sets forth recommended standards for clinic personnel, facilities and equipment, and clinic management.

A new section of the booklet deals with prevention of radiation hazards, giving rules for proper maintenance and use of fluoroscopy units.

Copies of "Recommended Standards for Cardiovascular Clinics" are available to members of health departments, clinic staffs, hospital trustees and other professional personnel concerned with community health problems. Requests should be addressed to Mississippi Heart Association, 145 East Amite Street, Jackson, Miss.



Out-Patient Clinic and Offices

HILL CREST SANITARIUM
Established in 1925
FOR NERVOUS AND MENTAL DISEASES AND ADDICTION PROBLEMS

James A. Becton, M.D.
P. O. Box 2896, Woodlawn Station, Birmingham 6, Ala.

James Keen Ward, M.D.
Phone 595-1151 and 595-1152

Stelazine® will stop anxiety—but not your patient!
brand of trifluoperazine

To be truly useful in your office patients, an ataractic agent must not only relieve anxiety; it must also leave these patients sufficiently alert to engage in their normal activities.

'Stelazine' is such an agent. Its ability to relieve anxiety without producing appreciable sedation has been established in thousands of patients and documented by many published reports. Typical is the finding of Kolodny,[1] who concluded that the primary advantage of 'Stelazine' over many other tranquilizers seems to be "its ability to relieve symptoms of anxiety without undue interference with alertness."

When you wish to relieve anxiety, yet encourage the patient to engage in his normal activities, consider 'Stelazine'.

1. Kolodny, A.L.: Dis. Nerv. System *22*:151 (Mar.) 1961.

For prescribing information, please see *PDR* or available literature.

Smith Kline & French Laboratories, Philadelphia
leaders in psychopharmaceutical research

SK&F



TRUSTEES, COUNCILS, AND COMMITTEES

■ BOARD OF TRUSTEES

H. H. McClanahan, Jr., Columbus, Chairman (1964)
John B. Howell, Jr., Canton, Vice Chairman (1965)
C. D. Taylor, Jr., Pass Christian, Secretary (1963)
Charles W. Patterson, Rosedale (1964)
Joseph B. Rogers, Oxford (1964)
Mal S. Riddell, Jr., Winona (1965)
Lamar Arrington, Meridian (1965)
William E. Moak, Richton (1963)
Everett H. Crawford, Tylertown (1963)

■ COUNCIL ON BUDGET AND FINANCE

W. K. Purks, Vicksburg, Chairman (1963)
Omar Simmons, Newton (1964)
J. T. Davis, Corinth (1965)

■ EDITORIAL COUNCIL

W. Moncure Dabney, Crystal Springs, Editor (1963)
George H. Martin, Vicksburg, Associate Editor (1964)
Dewitt W. Hamrick, Corinth, Associate Editor (1963)

■ COUNCIL ON MEDICAL EDUCATION

Temple Ainsworth, Jackson, Chairman (1963)
E. LeRoy Wilkins, Clarksdale (1964)
W. O. Barnett, Jackson (1965)

■ COUNCIL ON CONSTITUTION AND BY-LAWS

E. Leroy Wilkins, Clarksdale, Chairman (1963)
Frank C. Massengill, Brookhaven (1965)
John B. Howell, Jr., Canton (1964)

■ COUNCIL ON LEGISLATION

W. E. Lotterhos, Jackson, Chairman (1963)
Lamar Arrington, Meridian (1964)
John G. Egger, Drew (1965)
R. E. Shands, New Albany (1965)
Frank M. Davis, Corinth (1965)
Paul B. Brumby, Lexington (1964)
Van C. Temple, Hattiesburg (1963)
A. V. Beacham, Magnolia (1963)
James T. Thompson, Moss Point (1963)

■ JUDICIAL COUNCIL

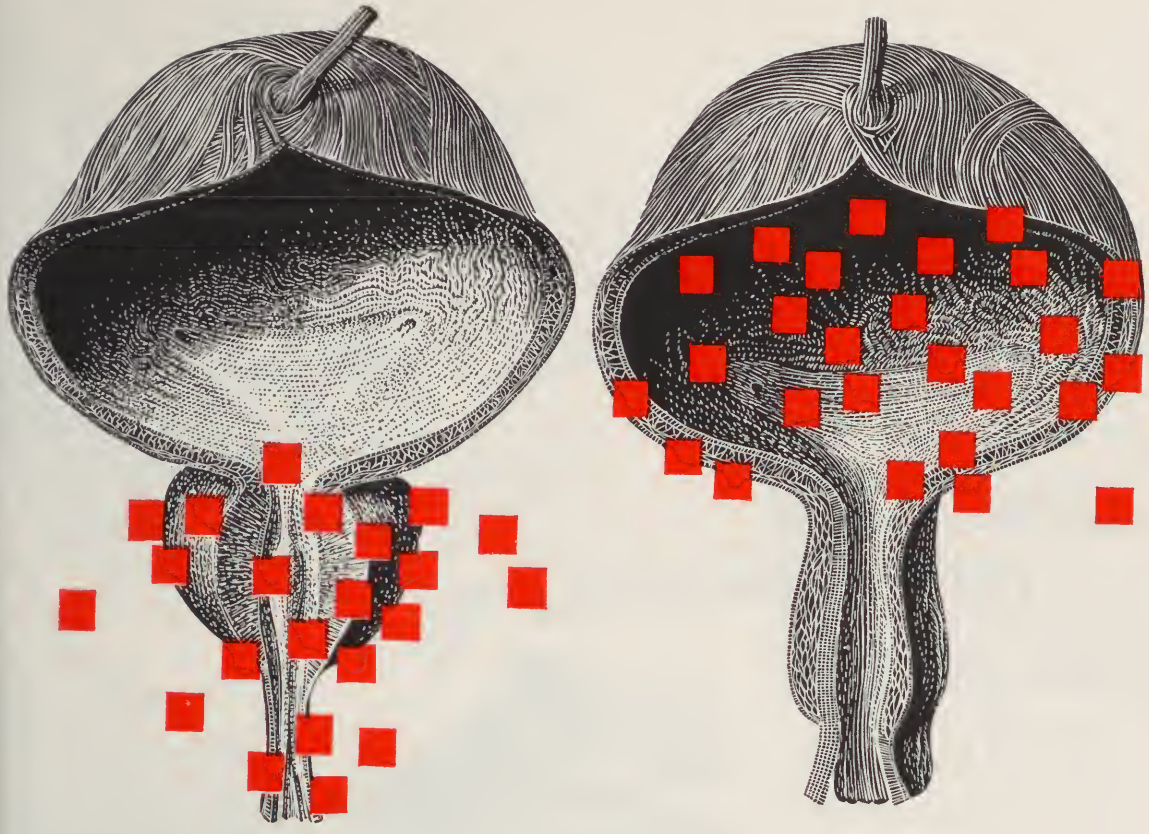
E. LeRoy Wilkins, Clarksdale, Chairman (1965)
R. L. Wyatt, Holly Springs (1965)
Thomas N. Braddock, Jr., West Point (1965)
Samuel B. Caruthers, Grenada (1963)
George H. Martin, Vicksburg (1963)
Omar Simmons, Newton (1963)
A. T. Tatum, Petal (1964)
G. Swink Hicks, Natchez (1964)
W. J. Weatherford, Pascagoula (1964)

■ COUNCIL ON MEDICAL SERVICE

Guy T. Vise, Meridian, Chairman (1965)
M. Q. Ewing, Amory, Vice Chairman (1963)
Edward Pennington, Ackerman (1965)
Frank M. Acree, Greenville (1963)
Joseph B. Rogers, Oxford (1963)
Temple Ainsworth, Jackson (1965)
T. E. Ross, Hattiesburg (1964)
E. H. Crawford, Tylertown (1964)
Fred C. Minkler, Pascagoula (1964)

■ COUNCIL ON SCIENTIFIC ASSEMBLY

C. G. Sutherland, Jackson, Chairman (1964)
Thomas W. Wesson, Tupelo, EENT
William E. Lotterhos, Jackson, GP
Joe S. Covington, Meridian, Medicine
Blanche Lockard, Jackson, Ob-Gyn
Joseph B. Miller, Jackson, Pediatrics
W. E. Riecken, Kosciusko, Preventive Medicine
Joseph G. McKinnon, Hattiesburg, Surgery



Serenium

Squibb Ethoxazene (Diamino-Ethoxy-Azobenzene Hydrochloride)

Quickly eliminates pain and burning in the lower urinary tract

At real savings to your patients

Serenium provides **quick, localized analgesic action** in acute and chronic urinary tract infections with **only 1 tablet** t.i.d. Your patient is assured of the prompt action of Serenium by the harmless orange-red color of the urine; and he will feel good about the **low prescription cost,** too.

Supply: Bottles of 50 and 500 chocolate-covered tablets. Each tablet contains 0.1 Gm. of Squibb Ethoxazene. For full information see your Squibb Product Reference or Product Brief.

Serenium® is a Squibb trademark

SQUIBB *Squibb Quality—the Priceless Ingredient*

SQUIBB DIVISION Olin

gratifying
relief
in bronchial
asthma

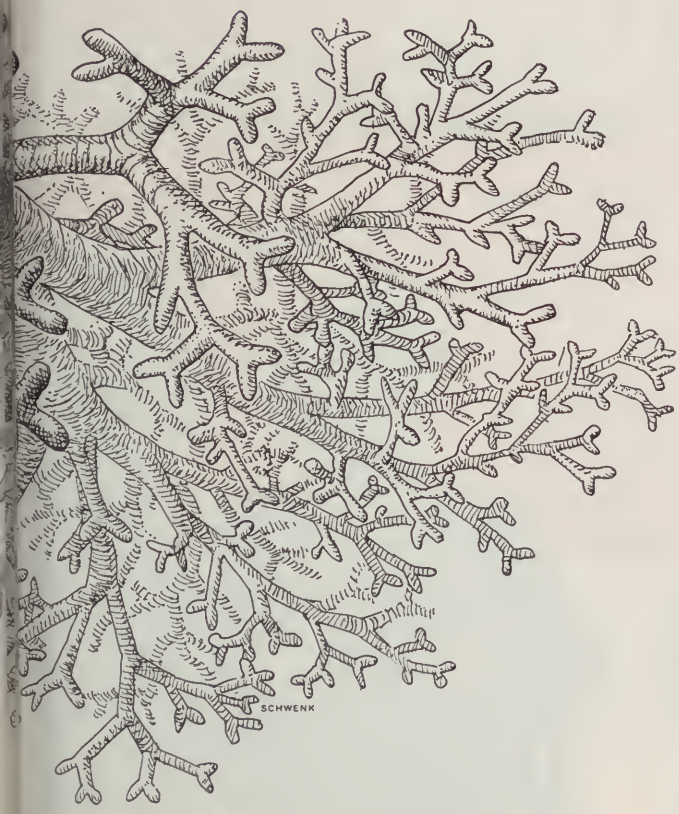




nsurpassed for total patient benefits

Aristocort®

Triamcinolone Lederle



With ARISTOCORT, asthmatic patients obtain sustained relief of wheezing, dyspnea, and spasmodic coughing. It is of particular value in ameliorating severe attacks that may have serious sequelae. With ARISTOCORT, many patients who might otherwise be invalids are able to continue their customary livelihoods or maintain their regular household activities. Yet this symptomatic relief is not often accompanied by the hormonal collateral effects —sodium retention, edema, emotional disturbance, insomnia, voracious appetite— that so often have been a deterrent to steroid therapy.

SUPPLIED: Scored tablets (three strengths), syrup and parenteral. Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

Lederle

LEDERLE LABORATORIES
A Division of
American Cyanamid Company
Pearl River, New York

For your elderly patients...

an effective GERIATRIC antiarthritic with distinctive Safety Factors

When arthritis afflicts the elderly, it often poses a critical problem in the choice of an effective antiarthritic that will not aggravate other common geriatric conditions . . . such as osteoporosis, hypertension, edema, hyperglycemia, peptic ulcer, renal, cardiac or hepatic damage, latent chronic infection, or emotional instability.

Pabalate-SF, the geriatric antiarthritic, is specially indicated for such patients.

As Ford and Blanchard have reported,[1] Pabalate-SF has "a pronounced antirheumatic effect in the majority of patients with degenerative joint diseases." It produces "a more uniformly sustained [salicylate blood] level for prolonged analgesia and, therefore, is superior to aspirin in the treatment of chronic rheumatic disorders."

Yet Pabalate-SF is marked by distinctive **safety factors:** its potassium salts cannot contribute to sodium retention . . . its enteric coating assures gastric tolerance . . . and its clinical record reflects none of the serious reactions frequently precipitated by therapy with corticosteroids or pyrazolone derivatives. **It has no contraindications except personal idiosyncrasy.**

1. Ford, R. A., and Blanchard, K: Journal-Lancet 78:185, 1958.

Formula: In each persian-rose enteric-coated tablet: potassium salicylate 0.3 Gm., potassium para-aminobenzoate 0.3 Gm., ascorbic acid 50.0 mg.

Also available:
PABALATE, when sodium salts are permissible.
PABALATE-HC, for conservative steroid therapy.

A. H. ROBINS CO., INC. • Richmond, Virginia

Robins

Pabalate®-SF

—the new, convenient way to prescribe **PABALATE-SODIUM FREE**





Liquid asset

Now that we have added a new liquid-dosage form to our Panalba* family, you may prefer to begin treatment with Panalba KM* Drops when dealing with bacterial infections of unknown etiology in infants and children. From the outset, pending laboratory determinations, your treatment is broadened in antibacterial coverage because of the simultaneous administration of two antibiotics that complement each other. They were carefully chosen for this purpose.

Panalba combines tetracycline (selected for its breadth of coverage) and novobiocin (selected for its unique effectiveness against staph). That is why, in most bacterial infections of unknown etiology, Panalba offers excellent chances for therapeutic success—and why it should be your antibiotic of *first* resort.

Supplied: Flavored granules for suspension, in 30 cc. bottles with dropper-stopper calibrated in ¼ and ½ teaspoonful graduations. After mixing and shaking with 25 cc. water, each 5 cc. teaspoonful of suspension will contain:
Panmycin* (tetracycline) equivalent to tetracycline hydrochloride .... 125 mg.
Albamycin* (as novobiocin calcium) ..... 62.5 mg.
Potassium metaphosphate ... 100 mg.
Usual pediatric dosage:
½ teaspoonful per 7½ to 10 pounds of body weight per day, administered in two to four equally divided doses.
(*Reminder advertisement.* Please see package insert for detailed product information.)

*TRADEMARK, REG. U.S. PAT. OFF.
COPYRIGHT 1962, THE UPJOHN COMPANY

THE UPJOHN COMPANY
KALAMAZOO, MICHIGAN

Upjohn

If you have patients on a cholesterol depressant diet, this will be welcome news:

General Mills is now making available, through grocery stores, a Safflower Oil which is totally acceptable in the diet, and which is priced reasonably.

SAFF·O·LIFE
Safflower Oil



As you know, Safflower Oil is higher in poly-unsaturates and lower in saturated fats than any other type of readily available vegetable oil.

When an increased poly-unsaturated fatty acid intake is desirable, you can recommend Saff-o-life Safflower Oil. You can do so with the assurance that the patient will find it completely appetizing—clear, light and fresh-smelling—and priced at a level which poses no problem.

Ratio of Linoleates* to Saturates
*(Poly-Unsaturates)

SAFFLOWER OIL • 9.0 to 1.0
CORN OIL • 5.3 to 1.0
SOYBEAN OIL • 3.5 to 1.0
COTTONSEED OIL • 2.0 to 1.0
PEANUT OIL • 1.6 to 1.0

Physicians who wish recipes using Saff-o-life Safflower Oil are invited to write directly to General Mills, Inc. Address your inquiries to Professional Services Director, General Mills, Inc. Dept. 120, 9200 Wayzata Blvd., Minneapolis 26, Minnesota.

INDEX TO ADVERTISERS

In accepting advertising for publication, the JOURNAL has exercised reasonable precaution to insure that only reputable, factual advertisements are included. Nevertheless, claims made by advertisers in behalf of goods, services, and medicinal preparations, apparatus or physical appliances are understood to be those of the advertiser. Neither sanction nor endorsement of such is warranted, stated, or implied by the association.

	Adv. page
Abbott Laboratories	insert
American Tobacco Company	21
Ames Company	47
Appalachian Hall	30
Blue Cross	9
Burroughs Wellcome	14, 30
Ciba Laboratories	34
Desitin Chemical Company	6
Endo Laboratories	35
Fesler Company	33
First Federal of Jackson	19
First Texas Pharmaceuticals	24
Glenbrook Laboratories	17
General Mills	44
Hill Crest Sanitarium	36
Kay Surgical	36
Lederle Laboratories	8, 32, 40, 41
Eli Lilly	front cover, 26
P. Lorillard Company	15
Mission Pharmacal Company	33
Parke, Davis and Company	2, 3
Pfizer Laboratories	28, 29
William P. Poythress	22
A. H. Robins	insert, 11, 42
Roche Laboratories	back cover
Schering Corporation	25
G. D. Searle	27
Smith Kline & French	10, 37
E. R. Squibb	39
U. S. Brewers	23
U. S. Vitamin	18
Upjohn Company	12, 13, 43
Wallace Laboratories	7, 20, 31
Winthrop Laboratories	4, 16, 46

Articles for Publication

Manuscripts should be typewritten, double spaced on one side of the paper. Tables, charts, and tabulations should be submitted on separate sheets but their position in the text should be indicated. Authors are encouraged to limit bibliographies to 10 references, written in conformation to style utilized in scientific publications of the American Medical Association. Articles are accepted for publication on the condition that they have not been previously published and are contributed solely to this JOURNAL.

A thesis summary of 75 to 100 words must accompany each manuscript separately from the text. Figures and drawings are acceptable when prepared with black ink on white paper. Photographs for illustrations should be unmounted, untrimmed, glossy prints and all such material must be identified. No charges are made to authors for illustration engravings not exceeding four column inches per printed page.

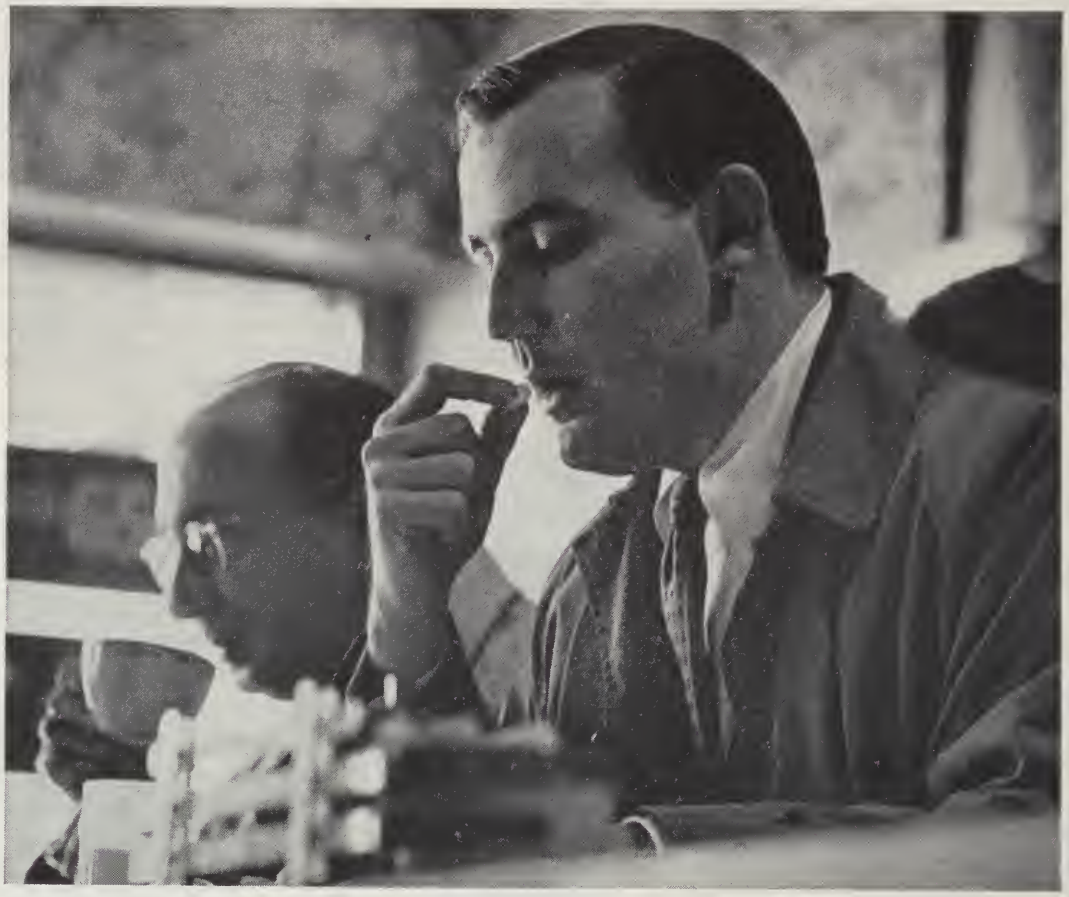
Reprints may be obtained at cost from the association. The right is reserved to decline any manuscript for publication. Ordinarily, manuscripts submitted will be acknowledged whether published or not.



CLASSIFIED

Well-trained general practitioner wanted by growing group in central Mississippi community. Complete city advantages for practice and family. Income commensurate with willingness to work. Write, giving full personal and professional details, to Dept. 216, JOURNAL MSMA, 735 Riverside Drive, Jackson.

General surgeon needed to affiliate with group. Good professional practice circumstances in mid-state area. Fine schools, churches, recreation for doctor's family. Ample financial return for competent, energetic man. Write, giving full personal and professional details, to Dept. 217, JOURNAL MSMA, 735 Riverside Drive, Jackson.



For peptic ulcer gastric hyperacidity and gastritis...

In year-long study on peptic-ulcer patients

New Creamalin®
Antacid Tablets

*"...faster in onset of action...and for a longer period"**

"Clinical studies in 85 patients with duodenal ulcer ...confirmed the superiority of the new preparation [new Creamalin] over standard aluminum hydroxide preparations, in that prompt relief was achieved and maintained throughout the period of observation."*

Patients were followed for about one year.

New Creamalin promotes ulcer healing, permits less frequent feedings because it is so long-acting. Heartburn and epigastric distress were "...easily and adequately controlled...."* New Creamalin has the therapeutic advantage of a liquid antacid with the convenience of a palatable tablet. *It does not cause constipation.*

Each new Creamalin tablet contains 320 mg. of specially processed highly reactive dried aluminum gel (stabilized with hexitol) with 75 mg. of magnesium hydroxide. Minute particles offer a vastly increased surface area.

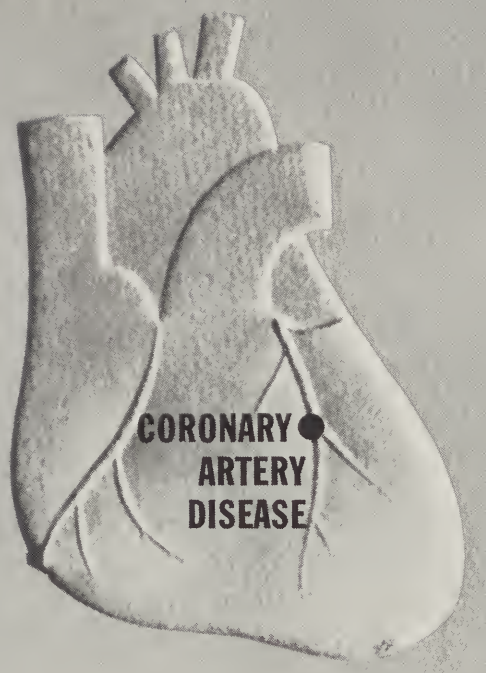
Dosage: Gastric hyperacidity—from 2 to 4 tablets as needed. Peptic ulcer or gastritis—from 2 to 4 tablets every two to four hours. *How Supplied:* Bottles of 50, 100, 200 and 1000.

Now also available—New Creamalin Improved Formula Liquid. Pleasant mint flavor—creamy pink color. Stabilized reactive aluminum and magnesium hydroxide gel (1 teaspoon equals 1 tablet). Bottles of 8 and 16 fl. oz.

Creamalin, trademark reg. U.S. Pat. Off.

*Schwartz, I. R.:
Current Therap. Res. 3:29, Feb., 1961.

Winthrop LABORATORIES New York 18, N. Y.



● "...now the leading cause of death in diabetic patients."[1]

Diseases of the cardiovascular-renal system account for about three-fourths of deaths among diabetic patients, with heart disease responsible for approximately one-half the total,[2,3] and coronary atherosclerosis the major cause of cardiac lesions.[1] While some feel that diabetics are predisposed, perhaps by heredity, to early onset of vascular disease, considered opinion is that vascular degeneration can be delayed or modified with "...careful and consistent control of diabetes from the time of diagnosis...."[4]

As a major step toward achieving *careful and consistent control,* you can teach your patients to do urine-sugar testing in the way most likely to assure continued cooperation—with the CLINITEST® Urine-Sugar Analysis Set.

for quantitative estimation

color-calibrated

clinitest®

urine sugar

- continued, close control
- graphic *Analysis Record* encourages cooperation...reveals degree of control at a glance...helps patient maintain control

for "yes-or-no" enzymatic testing

new, improved

DIP AND READ **clinistix®**

urine glucose

10-second reading...longer strip for easier handling...new color chart and color barrier for test area...in glass for protection

Supplied: CLINITEST Urine-Sugar Analysis Set (with bottle of 36 tablets and 2 foil-wrapped tablets); refill boxes of 24 Sealed-in-Foil Reagent Tablets and bottles of 36 tablets. CLINISTIX Reagent Strips in bottles of 60.

References: (1) Root, H. F., and Bradley, R. F., in Joslin, E. P.; Root, H. F.; White, P., and Marble, A.: The Treatment of Diabetes Mellitus, ed. 10, Philadelphia, Lea & Febiger, 1959, pp. 411, 437. (2) Joslin, E. P.; Root, H. F.; White, P., and Marble, A.: *ibid.*, pp. 188-189. (3) Marks, H. H., *et al.:* Diabetes *9*:500, 1960. (4) Marble, A., in Summary of Conference on Diabetic Retinopathy, Survey Ophth. (Part 2) *6*:611-612, 1961.

AMES
COMPANY, INC
Elkhart • Indiana
Toronto • Canada

AMES *products are available through your regular supplier.*

21462

LIBRARIAN
NAT LIBRARY OF MED
WASHINGTON 25 D C

specific for anxiety & tension

Librium

The singular specificity of Librium in controlling anxiety and tension has proven to be an advantage in a wide range of disorders characterized by anxiety of varying degrees. Notably effective in patients whose symptoms are primarily emotional, Librium is equally valuable when organic disease is aggravated or prolonged by accompanying anxiety. Coupled with its effectiveness is an outstanding record of safety. Librium has few, if any, of the unwanted side effects associated with tranquilizers and daytime sedatives—no extrapyramidal effects, no autonomic blocking, and no dulling of mental alertness. Consult literature and dosage information, available on request, before prescribing.

the successor to the tranquilizers

LIBRIUM® Hydrochloride—7-chloro-2-methylamino-5-phenyl-3H-1,4-benzodiazepine 4-oxide hydrochloride

ROCHE

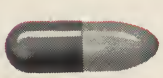
ROCHE

JOURNAL OF THE Mississippi STATE MEDICAL ASSOCIATION

OCTOBER 1962



sign of infection?



symbol of therapy!

NATIONAL LIBRARY OCT 4 1962 OF MEDICINE

osone® is available in three convenient forms: Pulvules®—125 and 250 mg.*; Oral uspension—125 mg.* per 5-cc. teaspoonful; and Drops—5 mg.* per drop, with ropper calibrated at 25 and 50 mg.

is is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and mpany, Indianapolis 6, Indiana. Ilosone® (erythromycin estolate, Lilly) *Base equivalent

Lilly

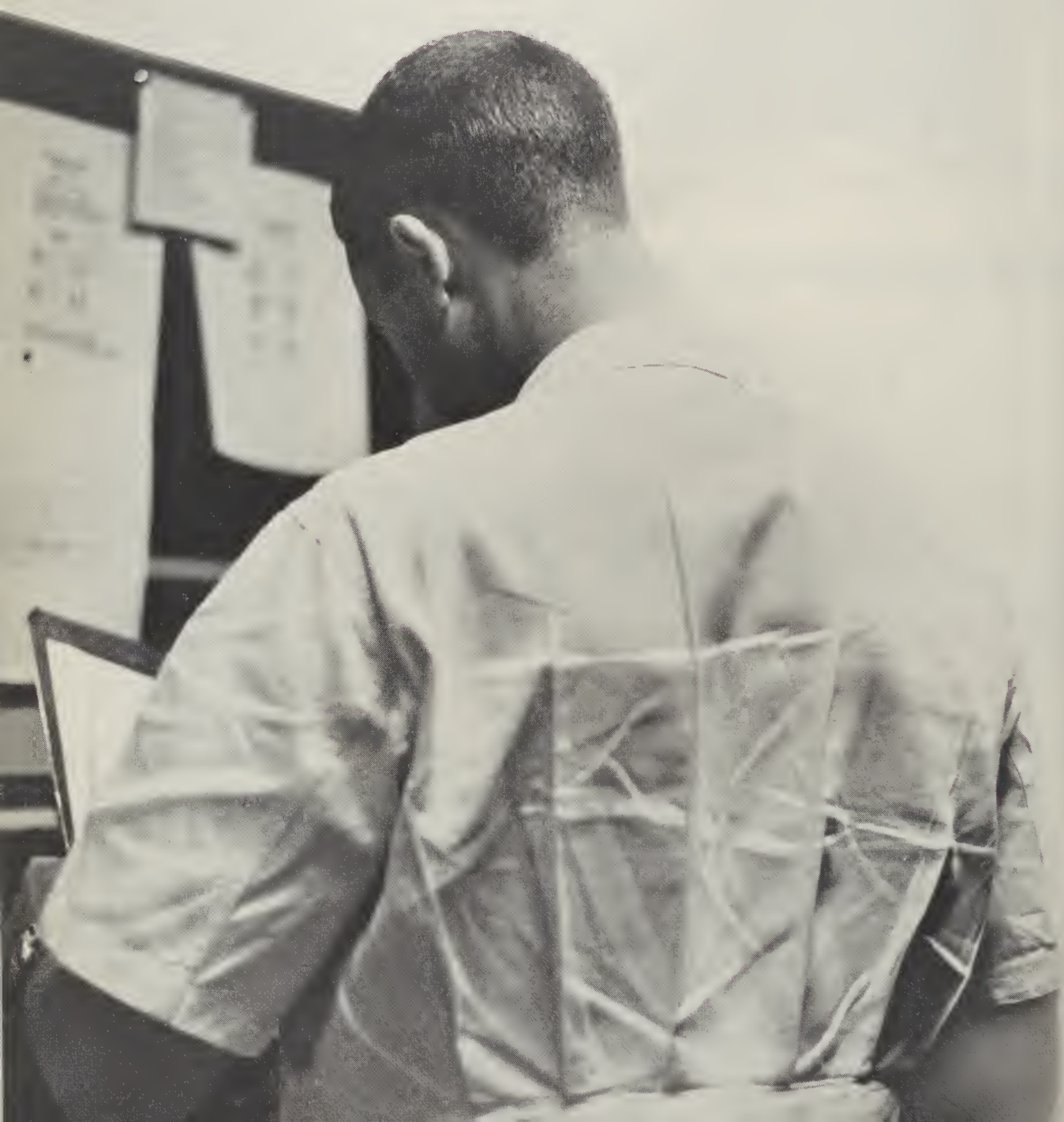
232633

Ilosone works to speed recovery

This Month . . . Exsanguinating Chest Wound, Preanesthetic Evaluation of the Poor Risk Patient, Differential Diagnosis of Chest Pain

M.S.M.A

in urinary tract infections...
the most common pathogens
respond to



CHLOROMYCETIN®

(chloramphenicol, Parke-Davis)

That the urinary tract is especially vulnerable to invasion by gram-negative pathogens is an observation often confirmed. Also amply documented[1-5] is the finding that many common offenders in urinary tract infections remain susceptible to CHLOROMYCETIN.

In one investigator's experience, chloramphenicol has maintained a wide and effective activity range against infections of the urinary tract. "It is particularly useful against the Coliform group, certain Proteus species, the micrococci and the enterococci."[2] Other clinicians draw attention to the "frequency for the need" of CHLOROMYCETIN inasmuch as "...a high percentage of *Escherichia coli* and Klebsiella-Aerobacter are sensitive to it."[1] Moreover, enterococci, other streptococci, and most strains of staphylococci exhibit continuing sensitivity to CHLOROMYCETIN.[1]

Successful therapy in urinary tract infections is dependent upon accurate identification and susceptibility testing of the invading organism, as well as the prompt correction of obstruction or other underlying pathology.[6]

CHLOROMYCETIN (chloramphenicol, Parke-Davis) is available in various forms, including Kapseals® of 250 mg., in bottles of 16 and 100. See package insert for details of administration and dosage.

Warning: Serious and even fatal blood dyscrasias (aplastic anemia, hypoplastic anemia, thrombocytopenia, granulocytopenia) are known to occur after the administration of chloramphenicol. Blood dyscrasias have occurred after both short-term and prolonged therapy with this drug. Bearing in mind the possibility that such reactions may occur, chloramphenicol should be used only for serious infections caused by organisms which are susceptible to its antibacterial effects. Chloramphenicol should not be used when other less potentially dangerous agents will be effective, or in the treatment of trivial infections, such as colds, influenza, or viral infections of the throat, or as a prophylactic agent.

Precautions: It is essential that adequate blood studies be made during treatment with the drug. While blood studies may detect early peripheral blood changes, such as leukopenia or granulocytopenia, before they become irreversible, such studies cannot be relied upon to detect bone marrow depression prior to development of aplastic anemia.

References: (1) Katz, Y. J., & Bourdo, S. R.: *Pediat. Clin. North America* **8**:1259, 1961. (2) Malone, F. J., Jr.: *Mil. Med.* **125**:836, 1960. (3) Ullman, A.: *Delaware M. J.* **32**:97, 1960. (4) Petersdorf, R. G.; Hook, E. W.; Curtin, J. A., & Grossberg, S. E.: *Bull. Johns Hopkins Hosp.* **108**:48, 1961. (5) Whitaker, L.: *Canad. M. A. J.* **84**:1022, 1961. (6) Martin, W. J.; Nichols, D. R., & Cook, E. N.: *Proc. Staff Meet. Mayo Clin.* **34**:187, 1959.

PARKE-DAVIS

PARKE, DAVIS & COMPANY, Detroit 32, Michigan

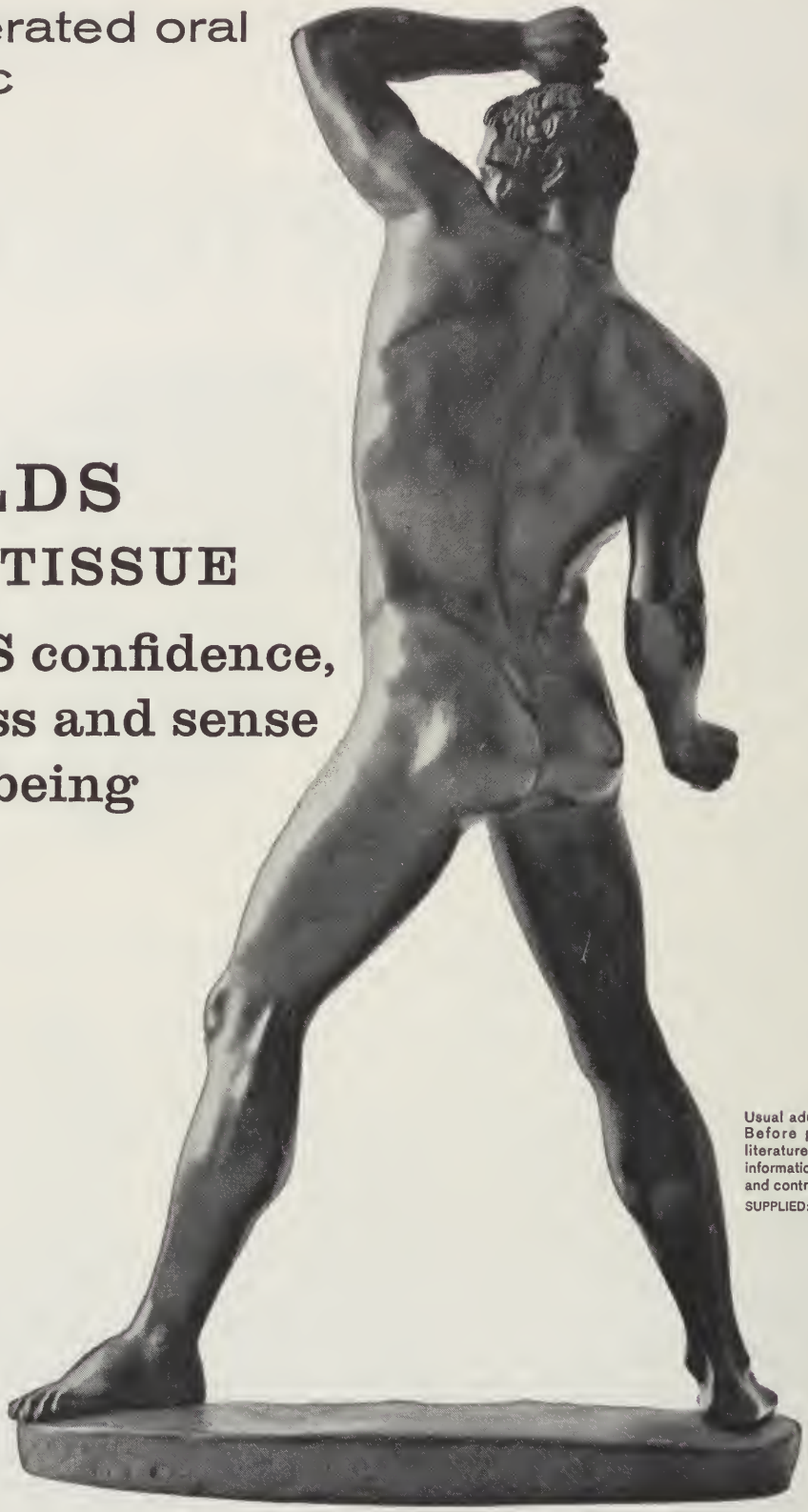
90462

THE SIGNIFICANT NEW PHYSIOTONIC

WINSTROL®

BRAND OF STANOZOLOL

well tolerated oral anabolic



BUILDS BODY TISSUE

BUILDS confidence, alertness and sense of well-being

Usual adult dose: 1 tablet t.
Before prescribing, cons
literature for additional dose
information, possible side effe
and contraindications.

SUPPLIED: 2 mg. tablets. Bottles of

Winthrop
LABORATORIES
New York 18, N.Y.

With WINSTROL, patients look better...feel stronger—because they are strong

Volume III
Number 10
October 1962



JOURNAL of the Mississippi
STATE MEDICAL ASSOCIATION

• EDITOR
WILLIAM M. DABNEY, M.D.

• ASSOCIATE EDITORS
DEWITT HAMRICK, M.D.
GEORGE H. MARTIN, M.D.

• MANAGING EDITOR
ROWLAND B. KENNEDY

• EDITORIAL ASSISTANT
BETTY M. SADLER

• PUBLICATIONS COMMITTEE
LAWRENCE W. LONG, M.D.
Chairman
B. B. O'MARA, M.D.
WILLIAM E. LOTTERHOS, M.D.
and the Editors

• THE ASSOCIATION
C. P. CRENSHAW, M.D.
President
JOHN G. ARCHER, M.D.
President-elect
C. G. SUTHERLAND, M.D.
Secretary-Treasurer
B. B. O'MARA, M.D.
Speaker
HOWARD A. NELSON, M.D.
Vice Speaker
ROWLAND B. KENNEDY
Executive Secretary
CHARLES L. MATHEWS
Assistant Executive Secretary

The JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION is owned and published by the Mississippi State Medical Association, founded 1856. Editorial, executive, and business offices, 735 Riverside Drive, Jackson, Mississippi; office of publication, 1201-5 Bluff Street, Fulton, Missouri. Subscription rate, $5 per annum; $1 per copy, as available. Advertising rates furnished on request. Second-class postage paid at the post office at Fulton, Missouri.

CONTENTS

ORIGINAL PAPERS

Preanesthetic Evaluation of the Poor Risk Patient **447** MARION A. CARNES, M.D., and LEONARD W. FABIAN, M.D.

Differential Diagnosis of Chest Pain **453** DAVID J. VANLANDINGHAM, M.D.

Clinical Notes: Exsanguinating Chest Wound **470** A. K. MARTINOLICH, JR., M.D., and KEITH HAMMOND, M.D.

SPECIAL ARTICLES

Radiologic Seminar VI: Pulmonary Histoplasmosis **460** ROBERT P. HENDERSON, M.D.

CPC XXXIII **462** Mercy Hospital

Undivided and Unconquered **467** HOWARD A. NELSON, M.D.

EDITORIALS

Stand Up and Be Counted! **473** The Individual's Part

Senator Eastland: Leader and Statesman **474** A Distinguished Career

Nurses and IV Fluids **474** California Policy

The Leisure Syndrome **475** Remedy: Hard Work

THIS MONTH

The President Speaking **472** "White Knight or Black Eye?"

The Literature **477** Books and Journals

Medical Organization **479** University Opens Psychiatric Unit

Copyright 1962, Mississippi State Medical Association



new triad
excellent for over-all topical control of
ATHLETE'S FOOT
(Tinea pedis)

ANAFUNG

ANAFUNG
Antifungal
CREAM
1 oz. tubes



ANAFUNG
FOOT POWDER
2 oz. cans
shaker top



ANAFUNG
AEROSOL
FOOT POWDER
jet spray leaves
long-clinging
powder, 6 oz. cans



- direct penetrating multiple antifungal power, more effective than undecylenic acid against fungi in horny, hard-to-reach skin layers
- antibacterial action against secondary infection even against antibiotic-resistant staph. Antimonilial in vitro
- superb drying properties
- relief from itching
- infrequent sensitization or irritation
- pleasant to use

Anafung therapy provides the classic antifungal fatty acids, sodium undecylenate and sodium propionate; the modern bacteriostat; 3,4,4′-trichlorocarbanilide (TCC); drying salicylic acid, cooling menthol and camphor; talcum and zinc stearate in the powders only.

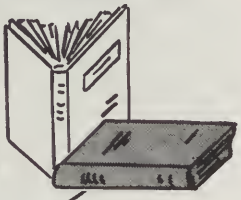
For **ANAFUNG SAMPLES** and literature, please write

DESITIN CHEMICAL CO., INC.
812 Branch Ave., Providence 4, R. I.

PROMOTED EXCLUSIVELY TO THE PROFESSION

SAUNDERS BOOKS

Valuable to the Physician



New (13th) Edition!

Davidsohn and Wells—
Todd-Sanford **Clinical Diagnosis by Laboratory Methods**

A Standard Guide and Advisor to 3 Generations of Physicians in the Intricacies of Clinical Laboratory Diagnosis. Now in a new up-to-date edition, this classic work tells you how to perform every possible clinical test. Step-by-step you are told what to do, when and how to do it — with increased emphasis on interpretation and evaluation of results. New material covers: *immune mechanisms and immunochemistry of red cells, leukocytes and platelets — application of isotopology in diagnosis—tests for hepatic function — etc.* Hundreds of illustrations amplify the text.

Edited by ISRAEL DAVIDSOHN, M.D., F.A.C.P., Chairman of Pathology, Chicago Medical School, Director of Pathology, Mt. Sinai Hospital and Director of Research, Mt. Sinai Medical Research Foundation, Chicago, and BENJAMIN B. WELLS, M.D., Ph.D., F.A.C.P., Dean, California College of Medicine, Los Angeles. 1020 pages, 6" x 9¼", over 1000 illustrations on 450 figures, 200 in color. About $15.50. *New (13th) Edition—Just Ready!*

New (3rd) Edition!

Wolff—
Electrocardiography

Tells You Why the Normal Electrocardiograph Pattern Looks Like it Does and Why Various Cardiac Disturbances Produce Abnormal Tracings. Dr. Wolff shows you how to utilize this information to establish diagnoses — without relying primarily on memorization of examples. He points out how to interpret both classical patterns and unusual aberrations which may complicate diagnosis. New diagnostic material is included on: *Left bundle branch block masquerading as right bundle branch block in some cases of infarction—ECG in deranged electrolyte patterns — Hyperkalemia — Adrenal hyperplasia with adrenocortical failure—Number of complex arrhythmias.*

By LOUIS WOLFF, M.D., Visiting Physician, Consultant in Cardiology and Head of the Cardiographic Laboratories, Beth Israel Hospital; Clinical Professor of Medicine, Harvard Medical School. 351 pages, 6½" x 9¾", 224 illustrations. $8.50. *New (3rd) Edition—Just Ready!*

A New Book!

Parsons and Sommers—

Gynecology

Clinical Advice on Managing Today's Gynecologic Problems

An experienced gynecologist and a skilled pathologist have uniquely combined their talent and knowledge to produce a remarkable text that describes, explains and pictures the diagnosis and management of gynecologic disorders as they occur in each period of growth and aging—from infancy through the postmenopausal era.

Mechanisms of disease in women are fully described: how each disorder starts, spreads and affects surrounding structures—how it produces signs and symptoms which can be evaluated and differentiated—how the disorder can be treated in light of present knowledge. Full recognition is given to the altered significance and differing management of the same problem—such as *abnormal bleeding, hormone imbalance, tumors and growths* — during the various progressive ages of women. You'll find valuable coverage of: *treatment of congenital defects found at birth and in infancy—treatment of amenorrhea—habitual abortion—tumors complicating pregnancy—endometriosis—cancer of the breast—sexual precocity—premenstrual tension—etc.*

By LANGDON PARSONS, M.D., Professor of Obstetrics and Gynecology, Boston University School of Medicine; Chief, of Gynecology, Massachusetts Memorial Hospital; and SHELDON C. SOMMERS, M.D., Pathologist, Scripps Memorial Hospital; Clinical Professor of Pathology, University of Southern California School of Medicine, Los Angeles. 1250 pages, 6½" x 9¾", 488 illustrations. $20.00. *New!*

To Order Mail Coupon Below!

W. B. SAUNDERS COMPANY
West Washington Square Philadelphia 5

Please send and bill me:

☐ Parsons & Sommers' Gynecology, $20.00

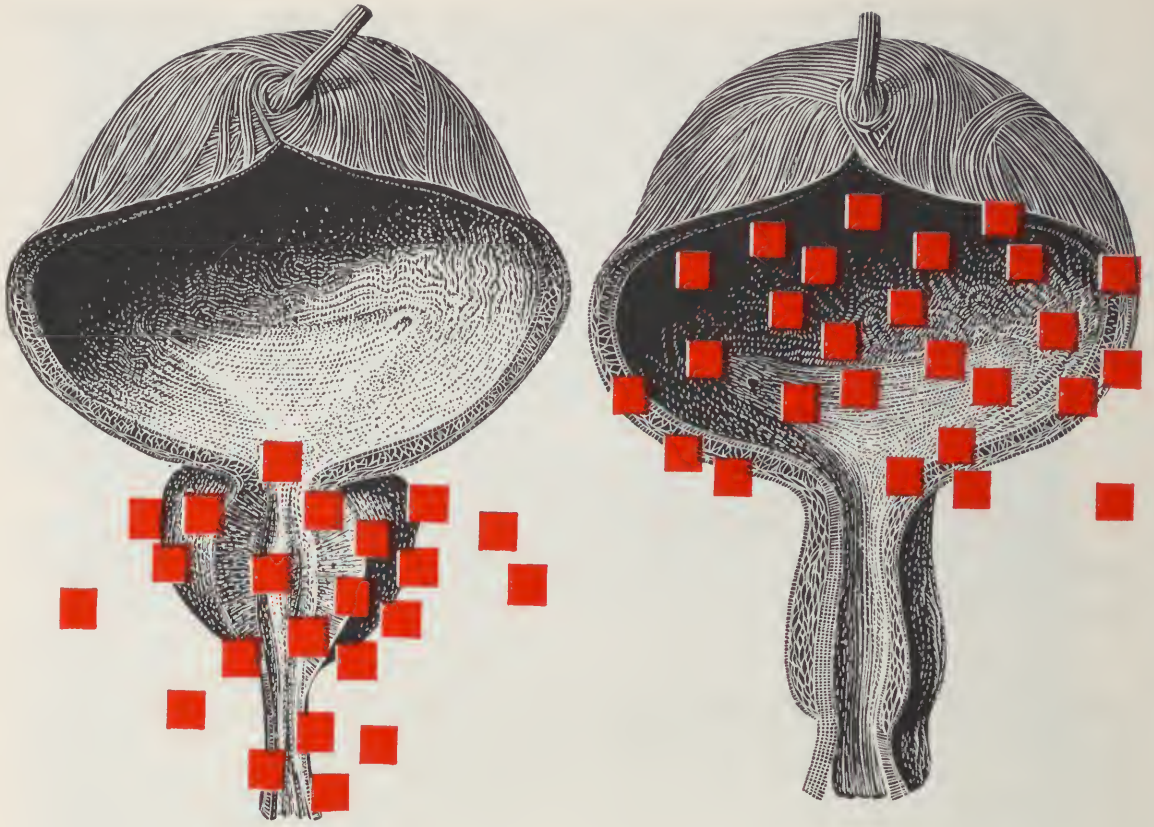
☐ Davidsohn & Wells' Clinical Lab Diagnosis, about $15.50

☐ Wolff's Electrocardiography, $8.50.

Name .....

Address .....

.....SJG 10-62



Serenium

Squibb Ethoxazene (Diamino-Ethoxy-Azobenzene Hydrochloride)

Quickly eliminates pain and burning in the lower urinary tract

At real savings to your patients

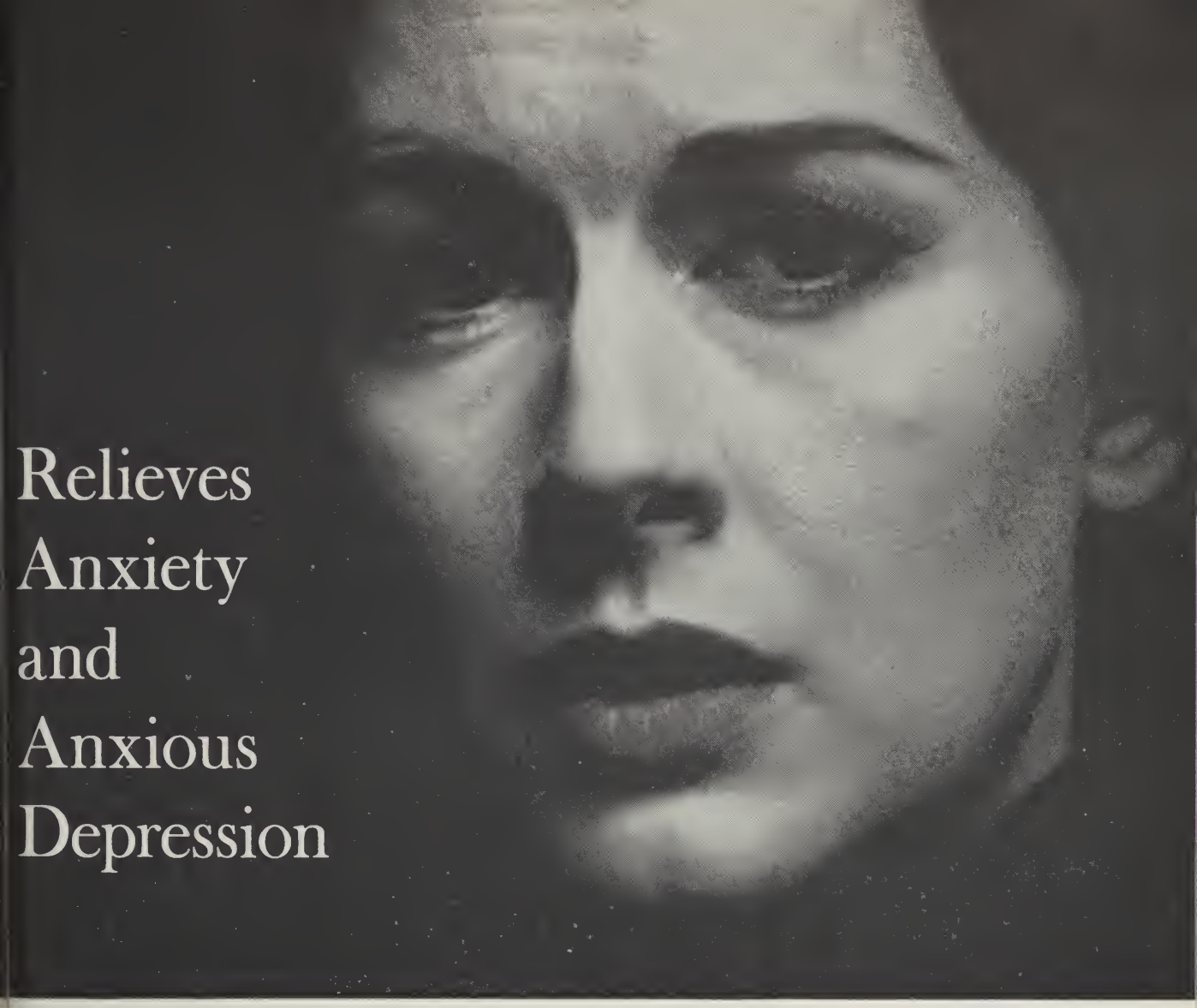
Serenium provides **quick, localized analgesic action** in acute and chronic urinary tract infections with **only 1 tablet** t.i.d. Your patient is assured of the prompt action of Serenium by the harmless orange-red color of the urine; and he will feel good about the **low prescription cost,** too.

Supply: Bottles of 50 and 500 chocolate-covered tablets. Each tablet contains 0.1 Gm. of Squibb Ethoxazene. For full information see your Squibb Product Reference or Product Brief.

Serenium® is a Squibb trademark

SQUIBB *Squibb Quality—the Priceless Ingredient*

SQUIBB DIVISION Olin



Relieves Anxiety and Anxious Depression

The outstanding effectiveness and record of safety with which Miltown relieves anxiety and anxious depression—the type of depression in which either tension or nervousness or insomnia is a prominent symptom — has been clinically authenticated time and again during the past seven years. This, undoubtedly, is one reason why physicians still prescribe meprobamate more often than any other tranquilizer in the world.

Miltown®

meprobamate (Wallace)

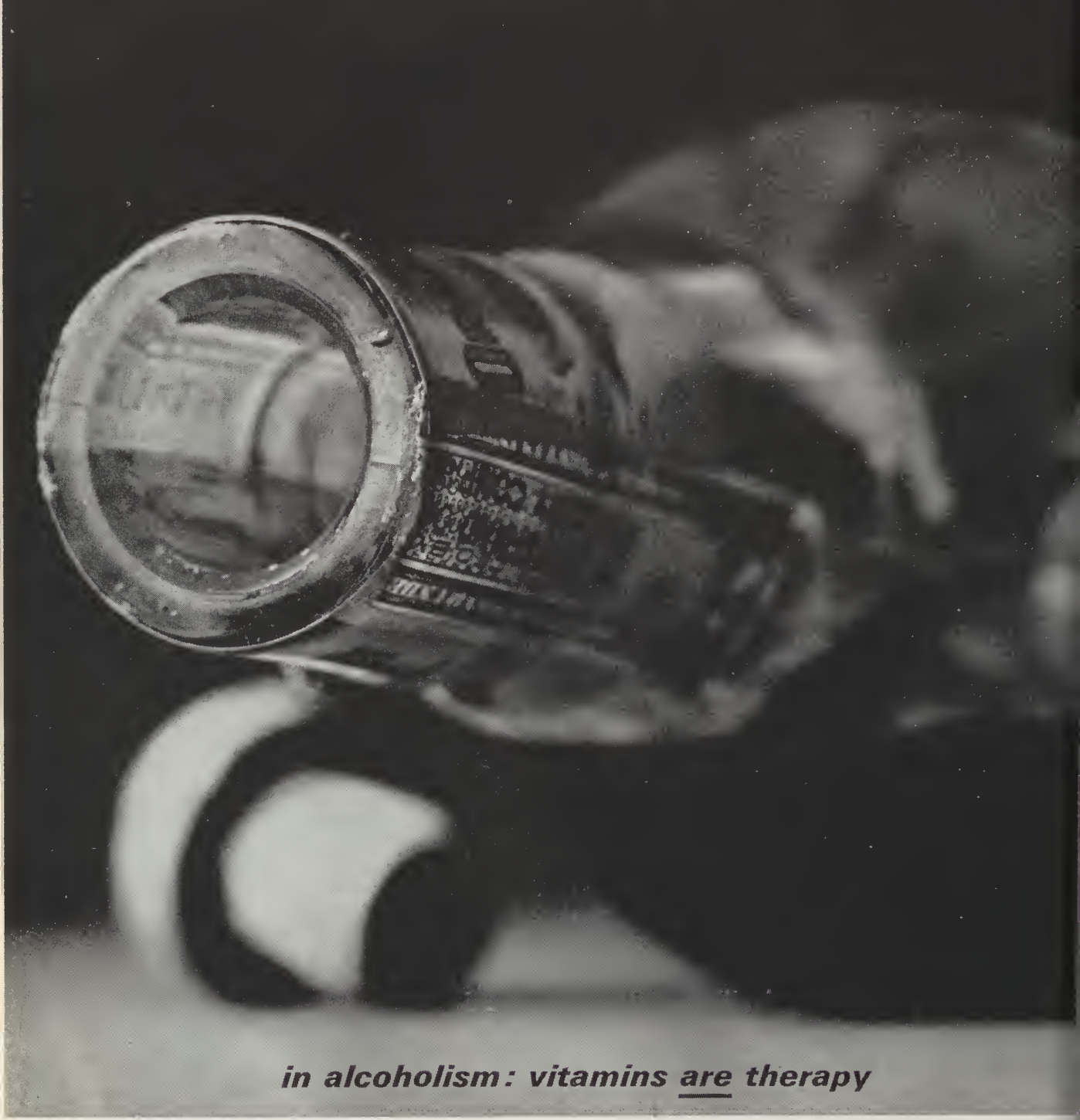
Usual dosage: One or two 400 mg. tablets t.i.d.
Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50. Also as MEPROTABS® — 400 mg. *unmarked*, coated tablets; and in *sustained-release* capsules as MEPROSPAN®-400 and MEPROSPAN®-200 (containing respectively 400 mg. and 200 mg. meprobamate).

WALLACE LABORATORIES / *Cranbury, N. J.*

Clinically proven in over 750 published studies

1. Acts dependably — without causing ataxia or altering sexual function
2. Does not produce Parkinson-like symptoms or liver damage
3. Does not muddle the mind or impair physical activity

CM-7381



in alcoholism: vitamins are therapy

A full "comeback" for the alcoholic is partly dependent on nutritional balance...aided by therapeutic allowances of B and C vitamins. Typically, the alcoholic patient is seriously undernourished...from long-standing dietary inadequacy, from depletion of basic reserves of water-soluble vitamins. Supplied in decorative "reminder" jars of 30 and 100.

Each capsule contains:	
Vitamin B_1 (Thiamine Mononitrate)	10 m
Vitamin B_2 (Riboflavin)	10 m
Niacinamide	100 m
Vitamin C (Ascorbic Acid)	300 m
Vitamin B_6 (Pyridoxine HCl)	2 m
Vitamin B_{12} Crystalline	4 mcg
Calcium Pantothenate	20 m

Recommended intake: Adults, 1 capsule da or as directed by physician, for the treatme of vitamin deficiencies.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

STRESSCAPS®

Stress Formula Vitamins Lederle

NEWSLETTER

MISSISSIPPI STATE MEDICAL ASSOCIATION
JACKSON, MISSISSIPPI

October 1962

Dear Doctor:

Enactment of the Keogh bill whittled down the 27 year old tax inequity against accumulation of retirement savings by the self-employed. Senate-House conferees have ironed out wrinkles and problem is now getting JFK to sign measure into law. Final version will probably permit tax-deferred conservation of $1,250 annually with growth earnings taxed on five year average.

> MSMA's copyrighted Physicians' Planned Income Program will be adjusted to framework of new law and offered soon. Owned by association and available only to members, plan will give full tax benefits, have no acquisition costs, and feature stability, growth, and no-penalty recovery privileges.

The unlikely combination of a bookmaker and a nursing home is no laughing matter in Chicago where a horse parlor operator really has one. Bookie Joe Foreman said he lent Dr. Leonard Tilkin, owner of 17 nursing facilities, $55,000 but got a home instead of his money. Tilkin is under investigation for allegedly maintaining substandard facilities.

American Diabetes Association has set November 11-17 as annual detection week, urging participation by all local medical societies. Campaign materials are available without charge from ADA, 1 E. 45th St., New York 17, N.Y. but orders must be received by October 15 to insure timely delivery.

New postal regulations, effective January 1, 1963, may obsolete doctors' stationery supplies and overbuying wrong sizes could be costly. Envelopes less than three inches in height or four and one-half inches in length will then be non-mailable. On other sizes, Post Office Department says that envelopes having a height-to-length ratio less than 1:1.414 are "not recommended."

AMA called Drew Pearson's hand on wild charges against medical profession made in his fervent campaign for compulsory federal medical care. The liberal Washington columnist's attacks on individual doctors and medicine were denounced as "vicious and irresponsible." Documentation of misrepresentations is available from AMA headquarters.

AMA-ERF

A Symbol
to Support...

Sincerely,

Rowland B. Kennedy
Executive Secretary

DATELINE - MEDICAL AMERICA

Sabin Immunization Program Curbed During USPHS Study

Jackson - Mass immunization against poliomyelitis with Sabin oral vaccine was largely called off in Mississippi after approval of method was not forthcoming from public health officials. USPHS national advisory committee recommended curb on use of Type III for adults except in emergencies, cautioning that evidence showed vaccine caused disease in a very few cases. Generally, safety of Sabin preparation is not under indictment and mass immunization programs will be continued. Biggest problem likely to emerge could be some loss of confidence and public shyness of oral vaccine, giving new boost to use of Salk injections.

Cook County Negro Physicians Deplore NMA Action

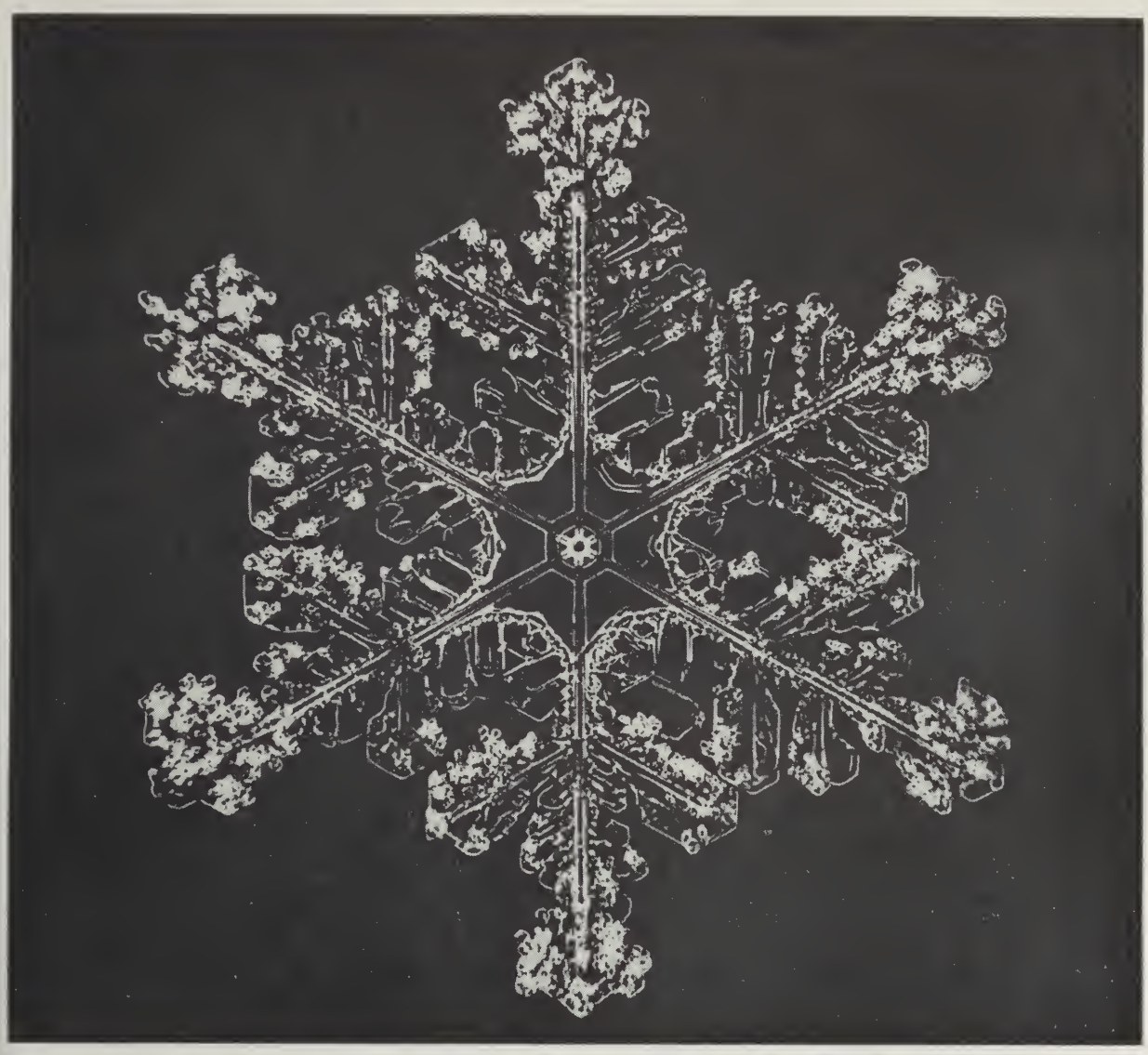
Chicago - The Cook County Medical Association, a constituent of the 4,000 member, all-Negro National Medical Association, took exception to action of parent body in supporting King-Anderson-type legislation at recent convention. Leaders said that "NMA was plagued by representatives from the AFL-CIO, by attorneys, by the (Forand) Senior Citizens Council, and other non-medical personnel who flooded convention with HEW literature." Interesting note is latter reference to pro-federal care materials published by a government agency at taxpayers expense.

House Approves New Tax Deductions For Medical Care

Washington - The House of Representatives passed H.R. 10620 without debate, giving new impetus to private medical care plans by offering industry greater tax incentives for including care benefits in pension programs and virtually doubling maximum allowable deductions for medical and dental expense by individuals. Companies could thus provide medical benefits as part of tax-deductible pension plans and maximum care cost deductions for individuals would be upped from $5,000 to $10,000 for single individuals and from $10,000 to $20,000 for married couples. Measure, sponsored by Rep. Thomas B. Curtis (R.,Mo.), will take steam away from King-Anderson-type legislation.

Ophthalmologists Are Concerned 'Why Johnny Can't Read'

New York - A growing group of ophthalmologists, intrigued by increasingly serious problem of children who have reading difficulty but no eye problems, are advocating use of "learning lenses" for all early graders. Intended for classroom use only, lenses increase focal length, combatting child's uncomfortable feeling of "confinement" with books. Proposal is by no means widely accepted and profound opinion differences exist among reputable eye authorities.



INDIVIDUALITY

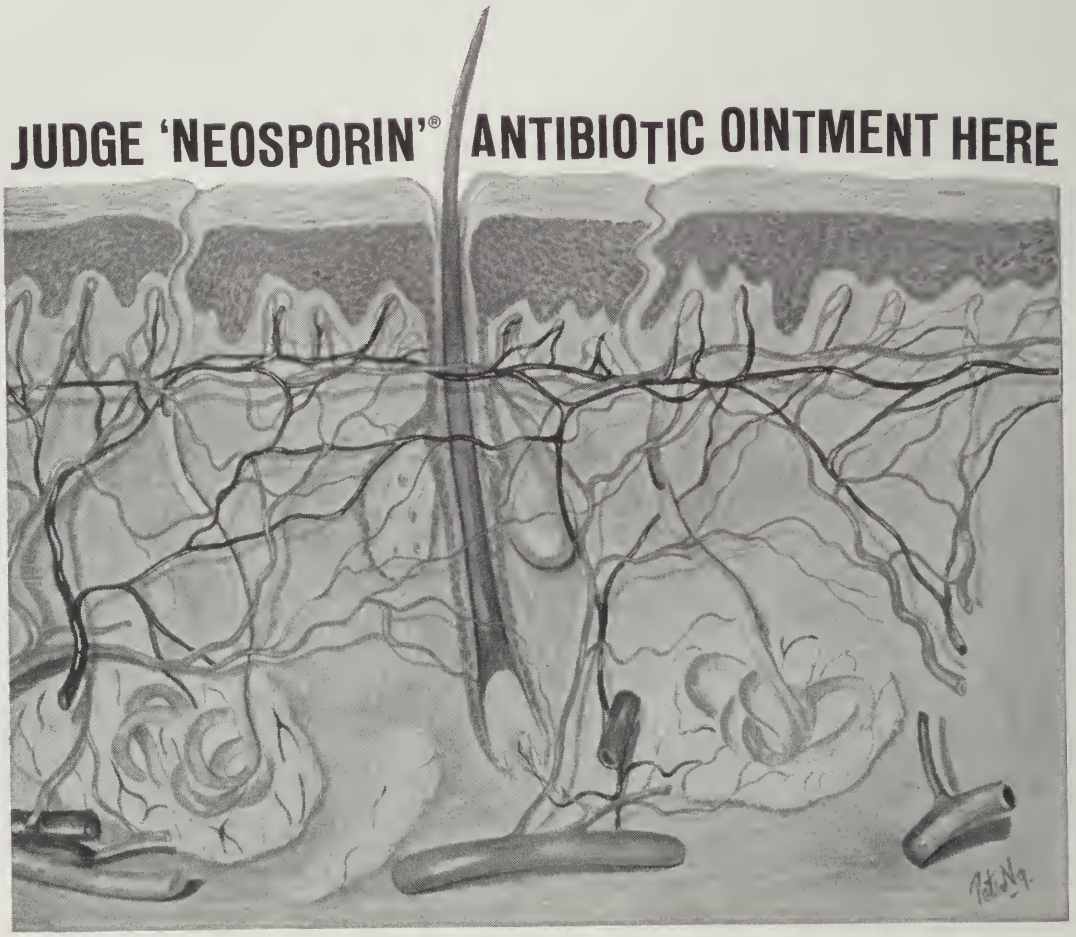
In a world where many things seem similar, the perceptive eye sees fundamental differences.

There is only one Blue Cross-Blue Shield. It is the preferred Plan of hospitals and doctors for prepaying medical costs. One of Mississippi Blue Cross-Blue Shield's most important and unique features is the fact that its **service benefits** are flexible. For example, Blue Cross benefits **are based on the actual care individuals receive in the hospital, rather than on a fixed dollar allowance.** There is a difference — no other plan can match the priceless protection provided by Mississippi Blue Cross-Blue Shield.

MISSISSIPPI
BLUE CROSS
BLUE SHIELD

MISSISSIPPI HOSPITAL & MEDICAL SERVICE / 530 EAST WOODROW WILSON AVE. / JACKSON, MISS. / TELEPHONE EM 6-1422

JUDGE 'NEOSPORIN'® ANTIBIOTIC OINTMENT HERE



Results on SKIN are the true test of a topical anti-infection agent. Because no *in vitro* test can duplicate a clinical situation in living skin, clinical use alone proves topical effectiveness. In thousands of cases of bacterial skin infection, consistently good results prove that 'Neosporin' Ointment works where topical efficacy counts—on the patient's skin. Why? The antibiotics diffuse readily from the special petrolatum base since they are insoluble in the petrolatum but readily soluble in tissue fluids.

'Neosporin' Ointment is bland, and rarely sensitizes.

'NEOSPORIN'® BRAND POLYMYXIN B BACITRACIN NEOMYCIN ANTIBIOTIC OINTMENT

Supplied: Tubes of 1 oz., ½ oz. with applicator tip, and ⅛ oz. with ophthalmic tip.

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York



WHEN HE EATS TOO HIGH ON THE HOG...

ENTOZYME® helps your gallbladder patient digest fat

The gallbladder patient who "can't resist" rich, succulent, greasy foods must often pay for his gastronomical indiscretions with the discomforts of fat-induced indigestion. However, these unpleasant aftereffects can frequently be relieved or prevented with Entozyme, a natural digestive supplement. Six tablets, the usual daily dose, will digest 60 gm. of fat or more. That's 50 to 90 per cent of an adult's normal daily intake. Bile salts stimulate the flow of bile and enhance the lipolytic activity both of Entozyme's Pancreatin and the patient's own lipase. Working together, Bile Salts and Pancreatin greatly aid the emulsification and transport of fat. Each enteric-coated Entozyme tablet contains Bile Salts (150 mg.) and Pancreatin, N.F. (300 mg.). Also 250 mg. of Pepsin, N.F.—enough to digest 8 gm. of protein.

A. H. Robins Company, Inc., Richmond 20, Virginia

When you choose an anorectic—

"Does it help the patient maintain the proper diet, is it free of dangerous side effects, and does the patient like it?"[1]

Perhaps you'll find, as Stevenson did, "['Eskatrol'] seems to meet these criteria better than most."

1. Stevenson, L.E.: M. Ann. District of Columbia *30*:409 (July) 1961.



ESKATROL®
SPANSULE®
brand of sustained release capsules

PRESCRIBING INFORMATION

Formula: Each 'Eskatrol' *Spansule* sustained release capsule contains Dexedrine® (brand of dextro amphetamine sulfate), 15 mg., and Compazine® (brand of prochlorperazine), 7.5 mg., as the dimaleate.

Recommended Dosage: One 'Eskatrol' *Spansule* capsule daily, taken in the morning.

Side Effects: Side effects (chiefly nervousness and insomnia) are infrequent, and usually mild and transitory.

Cautions: Clinical experience has demonstrated that 'Eskatrol' (containing the phenothiazine derivative, prochlorperazine) has a wide margin of safety and that there is little likelihood of blood or liver toxicity or neuromuscular reactions (extrapyramidal symptoms). The physician should be aware, however, of their possible occurrence.

'Eskatrol' *Spansule* capsules should be used with caution in the presence of severe hypertension, advanced cardiovascular disease, or extreme excitability.

Prescribing information adopted Jan. 1961

Smith Kline & French Laboratories SK&F



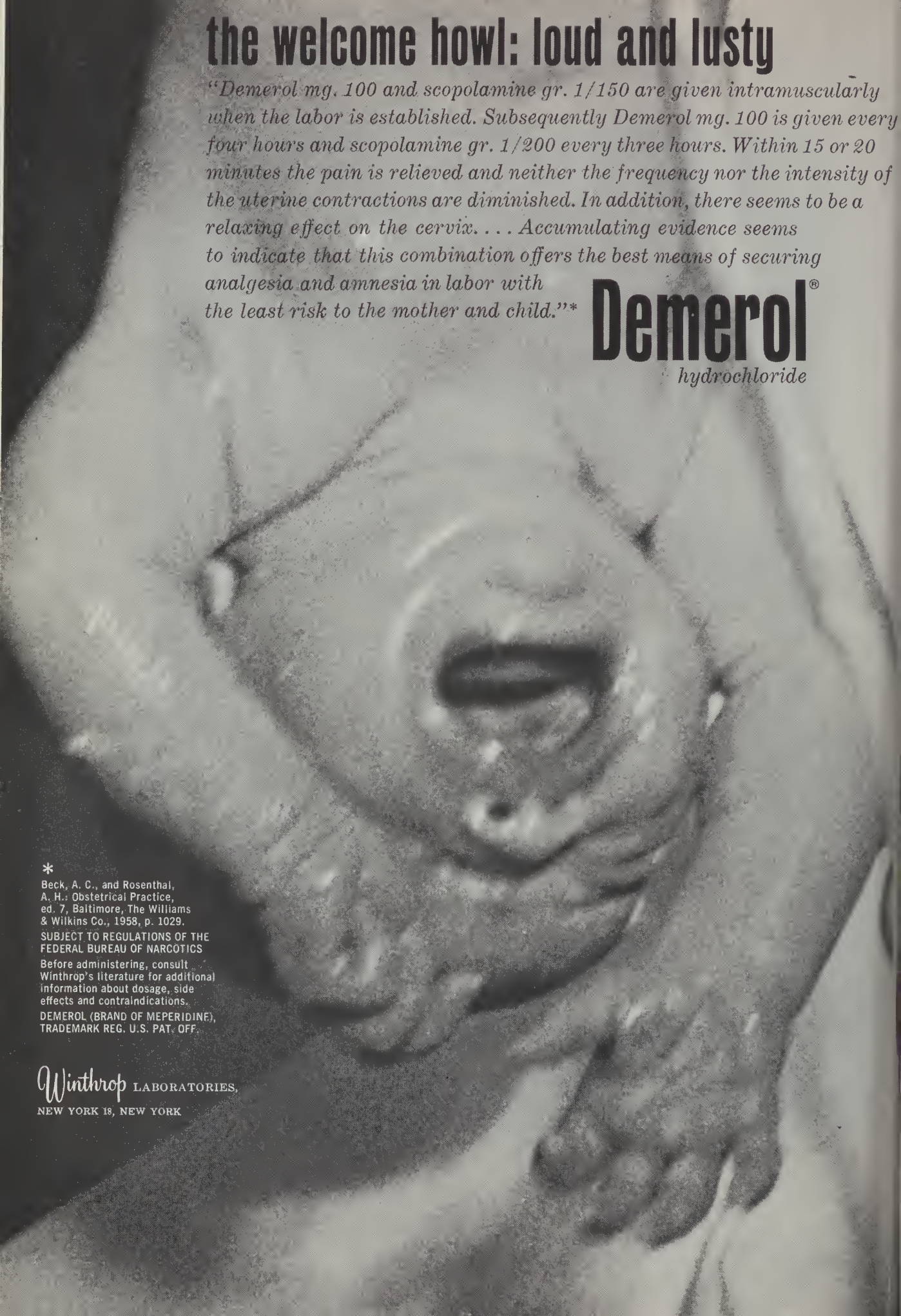
KENT'S development of the "Micronite" filter revolutionized the cigarette industry. Shortly after introduction of Kent with its famous filter, the swing to filter cigarettes got started in earnest. And no wonder. Kent with the new "Micronite" filter refines away harsh flavor, refines away rough taste, for the mildest taste of all.

Treat your taste kindly with KENT

The finer the filter, the milder the taste

A PRODUCT OF P. LORILLARD COMPANY · FIRST WITH THE FINEST CIGARETTES · THROUGH LORILLARD RESEARCH

© 1962 P. LORILLARD CO.



the welcome howl: loud and lusty

*"Demerol mg. 100 and scopolamine gr. 1/150 are given intramuscularly when the labor is established. Subsequently Demerol mg. 100 is given every four hours and scopolamine gr. 1/200 every three hours. Within 15 or 20 minutes the pain is relieved and neither the frequency nor the intensity of the uterine contractions are diminished. In addition, there seems to be a relaxing effect on the cervix. . . . Accumulating evidence seems to indicate that this combination offers the best means of securing analgesia and amnesia in labor with the least risk to the mother and child."**

Demerol®
hydrochloride

*
Beck, A. C., and Rosenthal, A. H.: Obstetrical Practice, ed. 7, Baltimore, The Williams & Wilkins Co., 1958, p. 1029.

SUBJECT TO REGULATIONS OF THE FEDERAL BUREAU OF NARCOTICS

Before administering, consult Winthrop's literature for additional information about dosage, side effects and contraindications.

DEMEROL (BRAND OF MEPERIDINE), TRADEMARK REG. U.S. PAT. OFF.

Winthrop LABORATORIES,
NEW YORK 18, NEW YORK

Logical support for the atherosclerosis diet

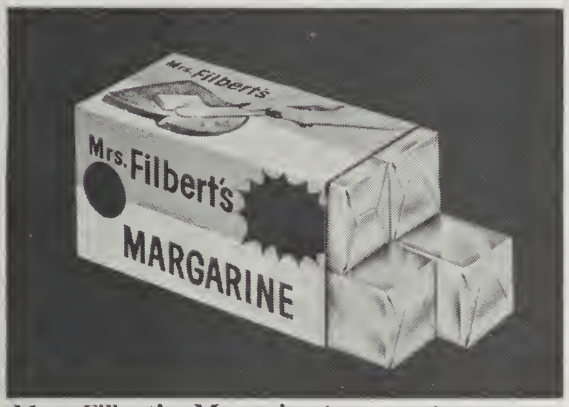
A recent report* in the *JAMA* on atherosclerosis states, "...it appears logical to attempt to reduce high concentrations of cholesterol and other serum lipids as an experimental therapeutic procedure."

Since this report recognizes table spreads as an important source of dietary fat, it is in your professional interest to know about the fatty acid composition of the margarines from Mrs. Filbert's.

Each of Mrs. Filbert's Margarines is over 80% unsaturated and offers unique properties useful in the control of serum lipids by dietary means.

Moreover, when you recommend any one of Mrs. Filbert's Margarines, your patient is assured of unmatched taste and flavor satisfaction—an important consideration in promoting adherence to any therapeutic regimen.

*AMA Council on Foods and Nutrition: The Regulation of Dietary Fat, *JAMA* 181: 411-423 (August 4, 1962).



Mrs. Filbert's Margarine is a popular, conventional-type margarine with no premium price. It is made from the finest domestic vegetable oils, which are partially hydrogenated for texture, but remain over 80% unsaturated. It has a ratio of polyunsaturates to saturates in excess of 1 to 1.



Mrs. Filbert's Whipped Margarine contains the same number of calories per pound as ordinary margarine, but contains 30% *fewer calories per pat* because it is whipped. When spread normally, it provides satisfaction with a reduction in fat calories. And its ratio of polyunsaturates to saturates exceeds 1 to 1.

If you would like information about Mrs. Filbert's family of margarines—including detailed listings of their component characteristics—please write to us.

J. H. FILBERT, Inc.

BALTIMORE 29, MARYLAND



Put your low-back patient back on the payroll

Soma relieves stiffness —stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, fast!

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

Kestler reports in controlled study: *Average time for restoring patients to full activity: with Soma, 11.5 days; without Soma, 41 days.* (*J.A.M.A. Vol. 172, No. 18, April 30, 1960.*)

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. **USUAL DOSAGE: 1 TABLET Q.I.D.**

The muscle relaxant with an independent pain-relieving acti

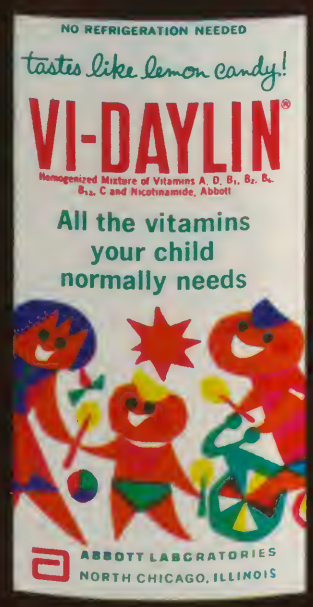
SOMA

(carisoprodol, Walla

Wallace Laboratories, Cranbury, New Jers



How do the lemons get in the Vi-Daylin?



Perhaps this should be cleared up once and for all. There are *no* lemons in Vi-Daylin. If you've ever tasted Vi-Daylin, this might surprise you. Certainly, it would surprise the youngsters. To most of them, Vi-Daylin is liquid lemon candy, and that's *that*. But if it's deception, it's sensible deception. You never have to badger the kids into taking their vitamins. Nice to know, too, that this matchless matching of candy essence and color elegance can be found in all the forms and formulas of Vi-Daylin.

VI-DAYLIN—Vitamins A, D, B_1, B_2, B_6, B_{12}, C, and Nicotinamide, Abbott; VIDAYLIN-M—Homogenized Mixture of Vitamins with Minerals, Abbott; VI-DAYLIN-T—High Potency Multivitamins, Abbott.

Remember, there are *three* liquid formulas: Vi-Daylin, ViDaylin-M® (with minerals), and ViDaylin-T® (therapeutic). And if patients get a little owlly and won't touch *anything* in a spoon, you can give them the new Chewable (please see back of this page).

Each delicious, 5-cc. teaspoonful of Vi-Daylin supplies the following proportions of the Minimum Daily Requirements of:

		MDR (Children)	MDR (Infants)
Vitamin A	0.9 mg. (3000 units)	1	2
Vitamin D	10 mcg. (400 units)	1	1
Thiamine HCl (B_1)	1.5 mg.	2	6
Riboflavin (B_2)	1.2 mg.	1⅓	2
Ascorbic Acid (C)	50 mg.	2½	5
Nicotinamide	10 mg.	1⅓	2

Also supplies cyanocobalamin (B_{12}) 3 mcg. and pyridoxine Hydrochloride 1 mg.

209035A

Abbott Laboratories
North Chicago, Illinois

Gentlemen,

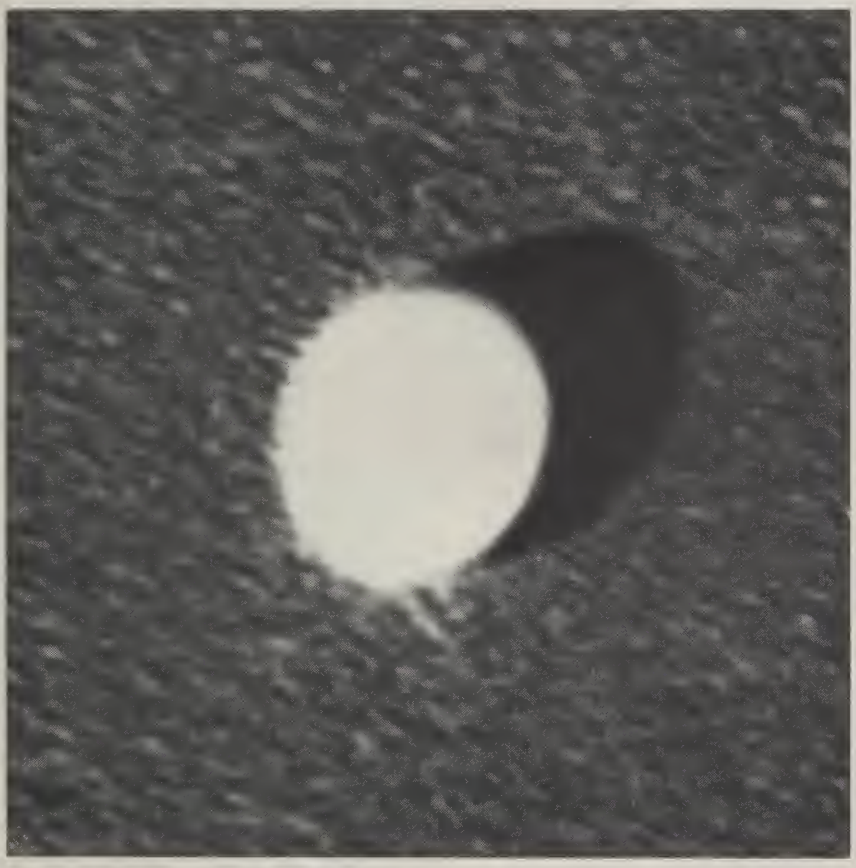
My family enjoys your chewable vitimans. It seems like we can not get enough of your vitimans. My sister enjoys your vitimans so much that she ask for more but cannot have no more. I like them because my mother does not have to worry about scolding us when taking it. Its good because you don't have no worries about something falling on the floor. If you kept on making these vitimans all the worlds children would be happy again. Now I would like to know whether I may have any information on the Middle West. You see my class and I are studying it. So if the information can be given I thank you very much.

"...all the worlds children would be happy again."

(an unsolicited testimonial from an actual letter)



ABBOTT





Goliath *David*

Against the formidable and ubiquitous Staphylococcus aureus, PANALBA* gives you a powerful weapon. PANALBA is a selective combination of novobiocin (for its unique effectiveness against staph) and tetracycline (for its breadth of coverage). From the outset, your treatment has broader antibacterial coverage resulting from the simultaneous administration of two antibiotics that complement each other. They were carefully chosen for this purpose.

That is why PANALBA offers excellent chances for therapeutic success.

Reminder advertisement. Please see package insert for detailed product information.

Upjohn

THE UPJOHN COMPANY
KALAMAZOO, MICHIGAN

*TRADEMARK, REG. U.S. PAT. OFF.

COPYRIGHT 1962. THE UPJOHN COMPANY



from boutonneuse fever in Afric

Whether treating boutonneuse fever, bronchopneumonia, or a host of other infections, physicians throughout the world continue to rely on the effectiveness, relative safety, and exceptional toleration of Terramycin in broad-spectrum antibiotic therapy. This continuing confidence is based upon thousands of published clinical reports and successful experience in millions of patients. *The next infection you see will more than likely be "Terra-responsive."*



IN BRIEF The dependability of Terramycin in daily practice is based upon its broad range of antimicrobial effectiveness, excellent toleration, and low toxicity. As with other broad-spectrum antibiotics, overgrowth of nonsusceptible organisms may develop. If this occurs, discontinue the medication and institute appropriate specific therapy as indicated by susceptibility testing. Glossitis and allergic reactions to Terramycin are rare. For complete information on Terramycin dosage, administration, and precautions, consult package insert before using.

More detailed professional information available on request.

Boutonneuse fever is a tick-borne, acute, febrile disease often affecting children. The bite site becomes a small, necrotic ulcer. A striking macular or maculopapular eruption develops on the trunk, palms and soles. Onset is sudden, with chills, high fever, violent headache and lassitude. The high temperature—up to 103° F.—characteristic of both boutonneuse fever and bronchopneumonia, drops rapidly following initiation of Terramycin therapy.

bronchopneumonia in Mississippi

BRAND OF OXYTETRACYCLINE

Terramycin® capsules • syrup • pediatric drops
intramuscular solution • intravenous

also available with nystatin as TERRASTATIN® (capsules and oral suspension)

Burdick



Choose the Burdick UT-400 Pulsed Ultrasound Unit for more *effective* treatment of musculoskeletal dysfunctions.

Write us for descriptive literature and prices.

We will be glad to demonstrate the unit in your office at a time convenient to you.

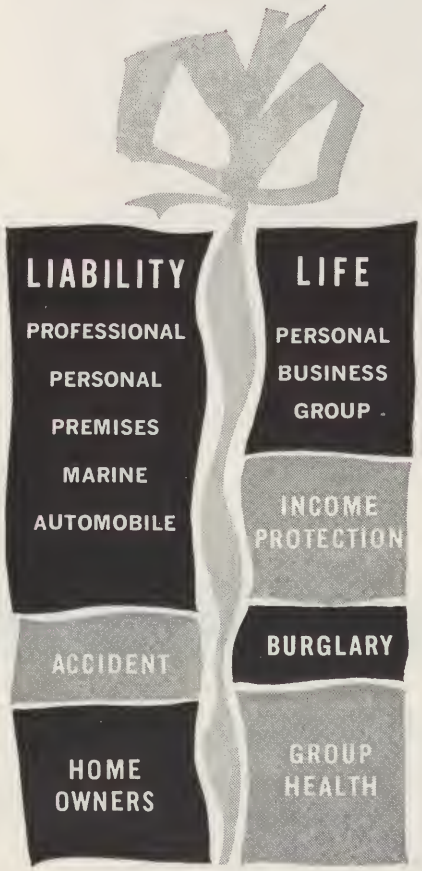
KAY SURGICAL INC.
663 North State St. • Jackson, Miss.

ANNUAL CLINICAL CONFERENCE

Chicago Medical Society
March 4, 5, 6 and 7, 1963
Palmer House, Chicago

Lectures
Medical Color Telecasts
Teaching Demonstrations
Instructional Courses
Film Lectures

The CHICAGO MEDICAL SOCIETY ANNUAL CLINICAL CONFERENCE should be a MUST on the calendar of every physician. Plan now to attend and make your reservation at the Palmer House.



ST. PAUL MULTICOVER PLAN

SINGLE PACKAGE OFFERS THE PROFESSIONAL MAN THE MOST COMPLETE, MOST CONVENIENT COVERAGES EVER!

Choose from over 40 kinds of protection, pack those you need into a single St. Paul Multicover Plan. Deal with just one agent . . . pay just one premium. It's simple and safer, too.

Avoids overlapping coverages or loopholes between individual policies. Write for explanatory booklet.

THE ST. PAUL
INSURANCE COMPANIES



Serving you around the world... around the clock

St. Paul Fire & Marine Insurance Company
St. Paul Mercury Insurance Company
Western Life Insurance Company

Endorsed for Professional Liability by Mississippi State Medical Association

MISSISSIPPI OFFICE
P.O. Box 1412
1129 Deposit Guaranty Bank Bldg.
Jackson 5, Mississippi
FLeetwood 3-4961

HOME OFFICE
385 Washington Street
St. Paul 2, Minnesota

Trocinate®

Brand of Thiphenamil HCl.

FOR DIVERTICULITIS, MUCUS COLITIS,

IRRITATIVE DIARRHEA, IRRITATIVE URETERITIS,

BLADDER SPASM

*T*rocinate is a musculotropic antispasmodic with no appreciable anticholinergic action. It relieves spasms of the lower bowel and genito-urinary tract by direct action on the contractile mechanism of smooth muscles. The absence of any appreciable action on the autonomic nervous system eliminates the usual side-effects. It may be safely used in glaucoma. Each tablet contains 100 mgs. Trocinate HCl.

USUAL DOSAGE: 2 tablets, 4 times a day. Maintenance dosage is frequently lower.

Dispensed in bottles of 40 and 250 tablets.

WM. P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA

Manufacturers of ethical pharmaceuticals since 1856



BENEFICIAL RESULTS were obtained with **SARDO** in the bath in 122 of 135 patients (90%) with dry, itchy skin conditions, in most cases with beneficial effect "after the first bath." Dryness was allayed in all cases, and associated itching "either completely relieved or greatly improved." No irritation or sensitization was observed.

This new study corroborated others[2-4] showing that SARDO helps re-establish the normal physiologic lipid-aqueous skin balance.

Pleasant, easy-to-use SARDO releases millions of microfine water-dispersible globules* in the bath. Bottles of 4, 8 and 16 oz.

*Patent Pending T.M. © 1962 by Sardeau, Inc.

SAMPLES and literature available from...

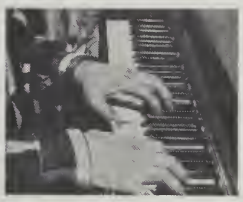
SARDEAU, INC.

75 East 55th Street, New York 22, N. Y.

1. Borota, A., and Grinell, R.N.: J. Amer. Geriatrics Soc., 10:413, 1962.
2. Spoor, H. J.: N.Y. State J.M. 58:3292, 1958.
3. Lubowe, I. I.: Western Med. 1:45, 1960.
4. Weissberg, G.: Clin. Med. 7:1161, 1960.

Long-term effectiveness of METICORTEN continues to be demonstrated in J. G., the arthritic miner whose case was first reported a year ago and who is leading a fully active life today, *after seven years of therapy.*

Schering



before METICORTEN—Rheumatoid arthritis commencing in 1949 with severe shoulder joint pain....Subsequent involvement of elbows and peripheral joints with swelling and loss of function....Complete helplessness by 1951 (fed and dressed by wife)....Unable to work despite cortisone, gold and analgesics....Hydrocortisone ineffective in 1954. **since METICORTEN**—Prompt improvement with METICORTEN, begun April 2, 1955....Returned to work that same year....Maintained to date on METICORTEN, 10-15 mg./day, without serious side effects and without losing a day's work at the mine because of arthritis.... Joint pain still controlled and full use of hands and limbs maintained. The foregoing information is derived directly from a case history provided by Joel Goldman, M.D., Johnstown, Pa. Original photograph of Dr. Goldman's patient taken November 10, 1960; follow-up photographs, November 29, 1961. METICORTEN,® brand of prednisone. For complete details, consult latest Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Bloomfield, New Jersey.

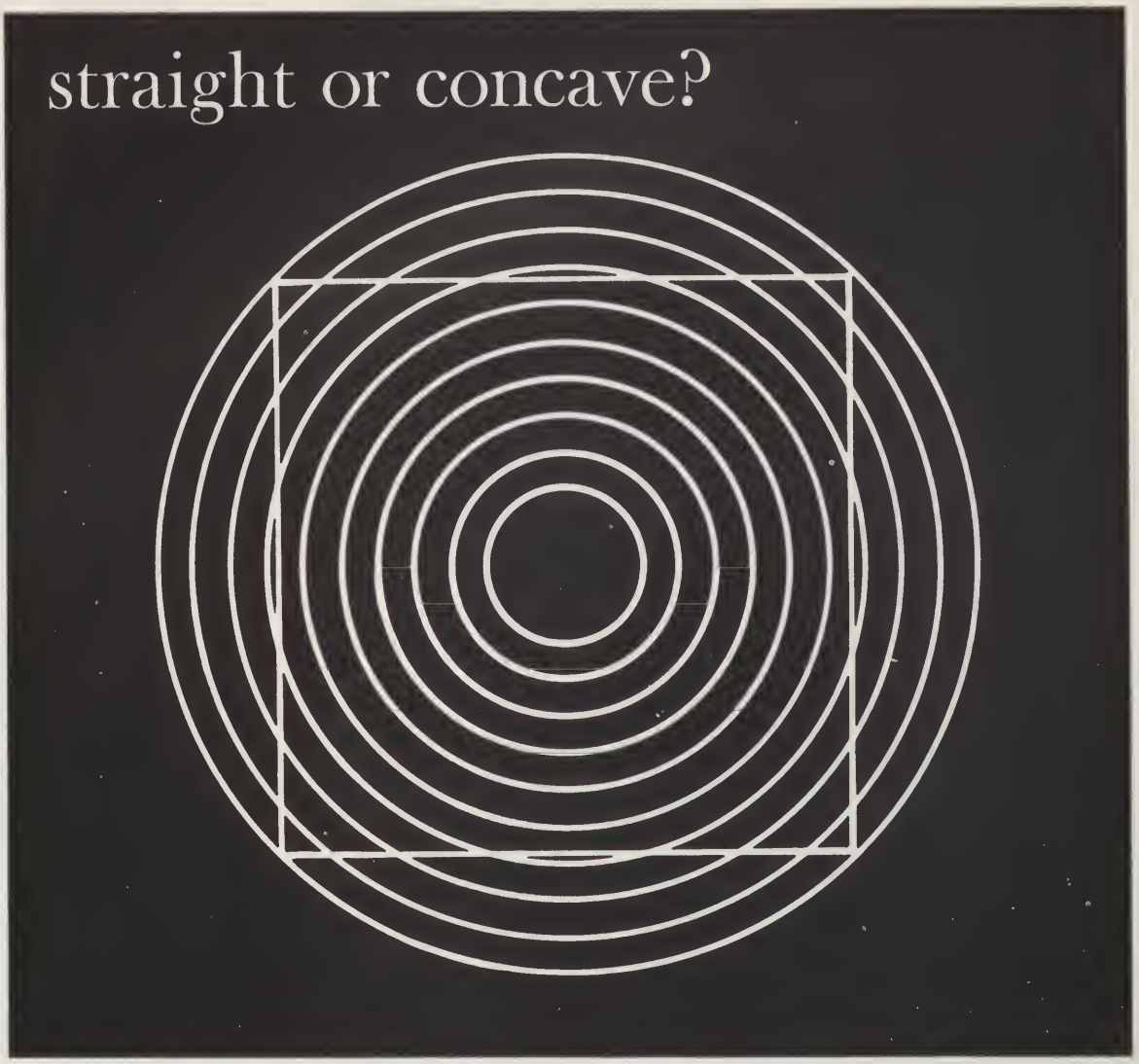
S-010



remember this arthritic miner, doctor? he's still working after another successful year (his 7th) on Meticorten®

brand of prednisone





If the confusing array of concentric circles were removed, it would be easy to see that the sides of the square are perfectly straight.

Likewise, when claims of "price" and "blood level" advantages are viewed in proper perspective, it becomes clear that it's what a drug *does* that counts.

V-Cillin K® achieves two to five times the serum levels of antibacterial activity (ABA) produced by oral penicillin G.[1] Moreover, it is highly stable in gastric acid and, therefore, more completely absorbed *even in the presence of food*. Your patient gets more dependable therapy for his money . . . and it's therapy he really needs.

For consistently dependable clinical results
prescribe V-Cillin K in scored tablets of 125 and 250 mg. or V-Cillin K, Pediatric, in 40 and 80-cc.-size packages. Each 5-cc. teaspoonful contains 125 mg. crystalline potassium penicillin V.

Lilly

V-Cillin K® (potassium phenoxymethyl penicillin, Lilly) (penicillin V potassium)
1. Griffith, R. S.: Antibiotic Med. & Clin. Therapy, 7:129, 1960.

233267

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana.

JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION
October, 1962, Vol. III, No. 10

ORIGINAL PAPERS

Preanesthetic Evaluation of the Poor Risk Patient

MARION A. CARNES, M.D., and LEONARD W. FABIAN, M.D.
Jackson, Mississippi

The preparation of a patient for anesthesia and surgery should reflect a team effort. The referring physician should be an important member of that team.

Efforts are directed toward maximal correction of intercurrent disease, maximal improvement in reserve of all physiological parameters, and a thorough understanding of the interrelationship of anesthetic drugs with drugs used in previous therapy.

Such a systemic approach to total patient care can convert the surgical procedure from a formidable hazard to controlled safe therapy and the postoperative period from a life-and-death struggle to a smooth calm recovery.

THE PHYSICIAN WHO refers a patient for anesthesia and surgery can provide a priceless service in insuring the life and happiness of his patient by assuming his rightful and vital role as a member of the surgical team.

One of the most valuable services to be provided by the referring physician is the assurance of the patient's confidence in the surgical team and in the relative merit of the proposed therapy. The best means of assuring that confidence is through the meticulous evaluation and preparation of the patient and team for the events proposed. The referring physician satisfies both his and his patient's needs by fulfilling the concept of total patient care.

To provide greatest coverage with least risk for the patient approaching anesthesia and surgery, it is necessary to know that the patient is in the best possible condition and that all disease states are maximally controlled. It is further necessary to evaluate the various reserves of the patient. It is prudent to anticipate the nature and treatment of complications that may result from disease states or drug therapy.

PREVIOUS DRUG THERAPY

There is no longer doubt that suppression of adrenal cortical secretion can occur if cortisone-like drugs are administered in doses approximating usual normal daily requirements for as long as two weeks. If a patient has had cortisone therapy of this magnitude within the year preceding anesthesia, one should supplement with exogenous corticosteroids the periods preceding, during, and following surgery. The following regimen will usually suffice:

The equivalent of cortisone acetate 100 mg. is given intramuscularly at 10 p.m. the night before surgery, at 6 a.m. the morning of surgery, and added to the intravenous infusion used during anesthesia which is begun at 8 a.m. Hydrocorti-

From the Department of Anesthesiology, University of Mississippi School of Medicine.

sone is now available in an intravenous preparation which facilitates rapid emergency preparation of these patients. Postoperative doses are adjusted to the degree of surgical and anesthetic stress. The usual requirement is cortisone acetate 100 mg. (or equivalent) intramuscularly every six hours for 24 hours, followed by the customary "weaning."

All tranquilizers have either a potentiating or additive effect of depression with other depressant drugs. The derivatives of phenothiazine, especially chlorpromazine (Thorazine), possess varying degrees of ganglionoplegic and possible adrenolytic properties. These can lead to uncontrollable hypotension with any anesthetic agent or technique by preventing reflex cardiovascular responses that normally tend to offset cardiovascular depression. These drugs should be withdrawn five days or more before anesthesia.

Reserpine, even a single therapeutic dose, may lead to depletion of norepinephrine at sympathetic nerve endings to block sympathetic transmission and produce severe hypotension. This effect can be demonstrated as late as three weeks following discontinuance of the drug. If possible, preparations containing reserpine should be discontinued at least two weeks before elective anesthesia. If the danger of hypertension from removal of the drug is thought to be a greater hazard than the risk of anesthesia in its presence, or in surgical emergencies, it may be inadvisable or impossible to interrupt reserpine therapy for this period of time. There are two courses available to decrease the anesthetic hazard. One may premedicate with atropine in doses sufficient to produce tachycardia. In an average adult, this would be in the order of 0.8-1.0 mg. atropine given subcutaneously one hour before anesthesia. This vagolytic effect tends to maintain the cardiac pacemaker at the S-A node, rather than allowing it to descend to the A-V node, or even into the ventricle. If hypotension occurs following induction of anesthesia, and is attributable only to reserpine, phenylephrine (Neosynephrine) would then be the first-choice vasopressor, though norepinephrine may be required.

Perhaps a more logical approach to the problem involves an attempt to assess preoperatively the degree of norepinephrine depletion by the ephedrine test. The activity of ephedrine depends on the release of norepinephrine at sympathetic nerve endings. Ephedrine 15 mg. is slowly administered intravenously and the blood pressure response is noted. An elevation of systolic blood pressure of 20 mm. or greater is considered a satisfactory response, indicating norepinephrine presence and activity.[1]

Animal studies suggest that this norepinephrine depletion may be reversed by intravenous administration at 20-30 drops per minute of a solution of norepinephrine (Levophed) 4 mg. in 500 ml. saline. The administration is discontinued as soon as a sympathetic response can be established.

Guanethidine (Ismelin R) prevents the release of norepinephrine at postganglionic synapses. Patients receiving this drug may exhibit marked sensitivity to norepinephrine (Levophed) and possibly to other vasopressors. Meprobamate (Miltown) is the least offensive of the presently fashionable tranquilizers.

Drugs that depress cardiac conduction mechanisms (digitalis, quinidine, procaine amide) may produce cardiac arrhythmias in patients under cyclopropane or halothane (Fluothane) anesthesia. Blood transfusions usually produce an elevated serum potassium which will significantly alter the state of digitalization. Administration of calcium-containing preparations (even the amount found in Hartmann's solution) may produce bizarre cardiac effects in digitalized patients.

It is appropriate here to recall that long-acting insulin preparations may exert a significant effect beyond 24 hours. Postoperative shock due to hypoglycemia must be guarded against in patients previously receiving these types of insulin.

It is reasonable to expect any physician prescribing any drug, including those mentioned above, to acquaint himself with all the secondary responses and side effects of the drug he is prescribing. It is also reasonable to expect that physician to advise the other members of the anesthesia-surgery team as to what complications may arise as a result of his drug therapy, and what steps may be taken to avoid or alleviate these complications.

ANEMIA

Hemoglobin and hematocrit values reflect the octane, not the gallons in the tank. The simile may be homely, but is quite appropriate.

It is generally accepted (and, in most hospitals, required) that patients undergoing elective anesthesia and surgery must have a minimal hemoglobin value of 10 gm. per cent or an hematocrit of 30 per cent. These minimal standards are arrived at quite logically.

One gram of hemoglobin can transport 1.34 cc. of oxygen. Blood containing 15 gm. of hemoglobin per 100 ml. can transport 20 cc. of oxygen per 100 ml., or 200 cc. of oxygen per liter of blood. A normal blood volume of four to five liters, depending on the patient's size (75-80 cc/kg body weight), can transport 800 to 1,000 cc. of oxygen. Oxygen utilization by the normal adult at

rest is 200-250 cc. per minute, varying about 7 per cent with each degree Fahrenheit of body temperature change. A normal blood volume with normal blood constituents contains enough oxygen for four to five minutes of respiratory interruption. Most respiratory obstructions can be corrected in this time. Permanent damage to the brain and even death may result from bouts of hypoxia lasting four to five minutes.

If a patient has a hemoglobin value of 10 gm. per cent, his blood volume may be reduced also by 25-30 per cent, or to about three liters and can transport up to 400 cc. oxygen, enough for two minutes or less.

If a patient has hemoglobin value of only 6 gm. per cent, he probably has a further reduction in blood volume, perhaps to two liters. This will transport only 160 cc. of oxygen, less than one minute's supply.

Breathing 100 per cent O_2 will saturate the plasma with oxygen in solution, but the maximum amount of oxygen that can be carried in solution at atmospheric pressure in plasma is only 2.2 cc. per 100 ml. of blood.

BLOOD VOLUME

There are no accurate data available to indicate the incidence of hypovolemia in a general population. Data that are available are restricted to specific hospital populations—geriatric patients, orthopedic patients, and selected patients undergoing major surgical procedures. On the basis of these studies, it would be proper to anticipate a blood volume deficit of over 10 per cent in over half the patients of middle age or older who are to have anesthesia and surgery. Most of these patients with blood volume deficits may be expected to have hematocrits ranging from 35-45 per cent.[2]

Patients with decreased circulating blood volume usually are able to compensate to ordinary activity, without stress, so that no serious circulatory disturbance occurs and hemoglobin and hematocrit values are normal. Intractable shock can occur in these patients with the loss of 200-300 ml. blood, since compensation can no longer be maintained. Intractable shock also can occur in these patients as a result of anesthesia alone, since compensatory reflexes are no longer active.

In the absence of accurate measurement of blood volume, there are several factors that may be considered prima facie evidence of decreased blood volume.

These are:

1. Loss of more than 10 per cent body weight, especially rapid recent loss,

2. Hemoglobin values of 10 gm. per cent or less (ignoring physiologic anemia of pregnancy),

3. Edema or hypoalbuminemia, except resulting from heart failure (which usually produces an increase in plasma volume),

4. Prolonged inactivity, especially when associated with chronic infections.

Blood volume can be measured by dye dilution technique or by tagging blood components with radioactive isotopes. A rough estimation of blood volume deficit can be made by using a tilt-table test and a leg-raising test, as described by Stanley and Webb.[3] An excellent discussion of blood volume related to surgical procedures has been published recently by Albert and co-workers.[2]

Serum protein deficiency occurs most commonly in gastrointestinal malignancy, occurring in 60 per cent of patients with gastric cancer and in 20 per cent of patients with colon cancer.[4] This protein deficiency results in a decreased plasma volume. A decreased plasma volume can conceal a shrunken red cell mass. If serum protein is less than 5 gm. per cent, wound healing probably will not occur.

As a rule of thumb, it is helpful to estimate that transfusion of one liter of blood will elevate serum protein 1 gm. per cent and hemoglobin 4 gm. per cent. However, if compensatory shunting of blood has occurred to decrease the vascular space, this estimation will not apply until after the hemoglobin value has begun to rise following transfusion. A more dependable rule of thumb to replace blood volume by transfusion is to administer 40-50 ml. whole blood per pound of weight loss.

Attempts to restore decreased blood volume by transfusion alone is not without considerable hazard and short-coming. Consider these factors:

1. Adequate time must be allowed following transfusion for readjustment of blood volume and constituents to the vascular space. Transfused blood will be retained, in a major part, by the reticuloendothelial system (especially spleen) for 12 to 36 hours.

2. Thirty grams of protein must be retained by extravascular tissues before one gram is added to plasma.[5]

3. Rapid restoration of blood volume by transfusion usually leads to at least temporary overload. Each pint of whole blood contains 3 gm. sodium chloride plus 5 gm. sodium citrate.

4. Mortality rate for each exposure to transfusion is estimated variously as equal to that of appendectomy or anesthesia alone; 0.5-0.15 per cent[6] is probably unrealistically low.

5. Morbidity following transfusion alone has been estimated as 3-8 per cent.[6] Because of inadequate reporting of complications, this figure is probably low also. This includes infectious diseases transmitted by transfusion (hepatitis, lues,

malaria); hemolytic reactions with the threat of renal shutdown; sensitization to antigens in blood; foreign protein reactions.

Ideally, there is a minimum optimal time required to correct hypovolemia, whether transfusions are used or not. This time is based on per cent of weight loss, as follows:

10 per cent body weight loss	5-7 days
20 per cent body weight loss	10-12 days
25 per cent body weight loss	15-30 days

There will arise situations in which this ideal time is not practical and must be set aside, as in surgical exigencies (hip-pinning, cancer), or when tissue loss exceeds the rate of tissue build-up (G-I fistulae, hypersplenism, or uncontrolled infections). However, it cannot be stated too strongly that it is foolhardy to set aside these considerations and compromise the patient's chance for survival merely to shorten the period of hospitalization or medical confinement for convenience or economy.

THIRD SPACE FLUID

The term third space fluid has been applied to that extracellular fluid loss to an injured or stressed site. Examples would be loss via burned surfaces, into the gastrointestinal tract in intestinal obstruction, or into the peritoneal cavity in peritonitis, an "internal burn." This fluid loss may easily amount to 5 to 10 l. of plasma-like fluid. This loss is manifested by the sequence of hypovolemia, hemoconcentration, tachycardia, and shock. This third-space fluid loss is reflected early by the urine volume. Urine volume reflects renal hemodynamics, urine composition reflects tubular function. The observant physician has ample early warning of impending shock from such loss of fluid. Oliguria of less than 25-30 ml. per hour usually precedes intractable shock by two or three hours. This allows time for correction by rapid intravenous infusion of appropriate fluids in adequate amounts to maintain urinary output at 40-60 ml. per hour.

ALLERGIES

Many of the drugs commonly used in anesthesia today are parasympathomimetic, and can trigger an allergic response. Cyclopropane, halothane, chloroform, and trichlorethylene may also sensitize the myocardium to epinephrine, commonly used to relieve allergenic symptoms. For these reasons, it is of value to know about a patient's hay fever or asthma, to know the offending allergens, and to know what therapy has been effective. Patients undergoing anesthesia may be saved from hazardous circumstances by the foreknowledge of unusual responses to local anesthetic drugs, analgesics, sedatives, or blood transfusions.

Foreknowledge of allergy to adhesive tape, which is not uncommon, can be rewarding. It can be most disconcerting to have to inform a patient that he has successfully withstood a rigorous and skillful surgical procedure and could go home now if his skin had not sloughed under the adhesive tape.

CARDIOVASCULAR DISEASE

Cardiovascular reserve can be estimated roughly and quickly by asking a few simple questions. How far can he walk at a rapid pace? Can he climb stairs? Do his ankles swell? Does walking rapidly produce chest pain or dyspnea? Often it is advisable to confirm answers to these questions by exercising with the patient to evaluate his exercise tolerance.

Preoperative electrocardiograms should be obtained on all patients above age 40 and on any patient with questionable cardiac disease. In addition to evaluation of conduction mechanisms, a necessary baseline has been established in the event of postoperative cardiac complications.

Preanesthetic digitalization has been proposed for patients in whom rapid shifts of circulating fluids are anticipated, or in whom limited cardiac reserve has been demonstrated. The real value of this procedure as related to its inherent hazard has not been established. If preanesthetic digitalization is elected, maximum drug effect is desired before the stress of anesthesia and surgery is applied, rather than maximum effect being delayed into the postoperative period. This infers the use of rapidly acting cardiac glycosides, given intravenously, if the need for surgery is urgent.

Patients with coronary artery disease have a twelve-to-one[7] increase in anesthetic hazard. A pulse rate above 140 beats per minute may not permit adequate time for coronary filling. Sudden hypotension as may occur with spinal anesthesia or sudden changes of position under general or spinal anesthesia may be fatal to the patient with diseased coronary arteries. As Heberden stated, these patients are subject without warning to fall down dead. The same is true of patients with aortic stenosis. Elective anesthesia must be postponed for at least three months (preferably six months) following myocardial infarction. Incidentally, a patient having diabetes mellitus for over ten years must be considered as having coronary artery disease.[8]

Marked fluctuations of blood pressure, up or down, certainly can produce vascular occlusion about atheromatous plaques. The relationship between gradually produced hypotension and vascular occlusion has not been studied adequately.

RESPIRATORY TRACT DISEASE

Maximum Breathing Capacity and Timed (three seconds) Vital Capacity are the most valuable tests of respiratory function. In their absence, fairly reliable estimates of respiratory reserve can be obtained by observing the breathing and talking habits of the patient with these tests in mind.

Diseases with an obstructive component (emphysema, asthma) and suppurative diseases (bronchiectasis, lung abscess) are the most frequent respiratory problems in general or conduction anesthesia. Patients with such diseases should be prepared for several days before anesthesia with appropriate antibiotics, expectorants, postural drainage, and bronchial relaxants. Intermittent positive-pressure breathing (IPPB) with aerosols of bronchial relaxants and mucolytic agents, as provided by the Bennett machine, is one of the most valuable aids available to this preparation. Its use is most strongly recommended. Smoking superimposes a chemical bronchitis on the above problems, so smoking should be discontinued a week prior to anesthesia.

Postoperatively, these patients can develop respiratory acidosis rapidly, especially if a tight dressing or pain limits respiratory excursions. Again, IPPB may literally save a life.

It should be needless to say that patients with pneumothorax, hemothorax, or pleural effusion should have these respiratory handicaps relieved prior to any anesthesia by aspiration or intercostal catheter drainage. A flail chest should be supported by external traction.

OBESITY

In the age range 45-55, mortality rates are increased by one per cent for each pound overweight.[9] Obesity is a serious disease of itself. It reduces all physiological reserves, yet increases the demands placed on all systems. Weight control before elective surgery is an integral part of total patient care.

LIVER DISEASE

The patient with liver disease has an added hazard during anesthesia and surgery. During the period of relative starvation associated with surgery, even greater efforts are required to prevent glycogen depletion in the diseased liver. Anesthetic agents in common usage today probably add little, if any, extra burden to the diseased liver in the absence of glycogen depletion or inadequate ventilation. And yet the stress of anesthesia and/or surgery may be the precipitating factor in liver failure in patients with greatly decreased liver reserve.

Impaired liver function certainly may influence the safe conduction of a patient through a period of anesthesia. Drugs that depend on liver metabolism for their eventual removal (some barbiturates, narcotics) must be used with caution in patients with impaired liver function. Similarly, many local anesthetic drugs are detoxified by the liver and one should consider this fact in determining doses of these drugs for such patients.

Admittedly, liver function cannot be accurately predicted on the basis of laboratory studies now generally available. This is no valid reason for failure to obtain as much general information as may be helpful through laboratory studies.

RENAL DISEASE

If the kidney is unable to concentrate urine to a specific gravity higher than 1.010, significant impairment of renal function must be presumed. In the absence of good renal function, selection of drugs for anesthesia must be limited to those which do not depend on the kidneys for excretion. As tubular function is decreased, there is a decreased safety margin for administration of fluids and electrolytes. The normal kidney can do much to conserve or excrete selectively fluids and electrolytes, thus providing a buffer against and correcting for our injudicious administration of these items.

Suppression of urine formation is not unusual during anesthesia with cyclopropane or ether. This does not necessarily contraindicate these drugs in the presence of renal disease, nor does it imply that renal damage should follow the use of these drugs.

CENTRAL NERVOUS SYSTEM DISEASE

In general there are three major considerations required in planning anesthesia for patients with central nervous system disease. First, degenerative disease of the spinal cord, either present or potential, such as tabes dorsalis, subacute combined degeneration of the cord, may be severely aggravated by subarachnoid block.

Secondly, decreased cerebral blood flow as a result of vascular disease will not permit further decrease in blood flow as might result from hypotension. It has been proposed, though not definitely established, that hyperventilation with re-

sultant hypocapnea may decrease cerebral blood flow in these patients to significant degree.

Thirdly, patients with elevated intracranial pressure must be protected from inadequate ventilation. Decreased oxygen saturation of the blood, and especially abnormally high carbon dioxide content of arterial blood represent strong stimuli to elevate intracranial pressure. Inadequate ventilation of these patients may readily precipitate a neurological crisis by rapidly increasing still further intracranial pressure. ★★★

2500 North State Street

REFERENCES

1. Crandell, D. L.: The Anesthetic Hazards in Patients on Antihypertensive Therapy, J.A.M.A. 179:495-500, 1962.
2. Albert, S. N.; Bageant, W. E.; Russell, A. S.; Small, F. H.; Albert, C. A.; and Bruner, W., Jr.: The Value of Routine Blood Volume Measurements in Major Surgical Procedures, Anesth. & Analg. 40:266-274, 1961.
3. Stanley, T. V., and Webb, W. R.: Preoperative Evaluation of the Chronically Ill Surgical Patient by Tilt Table and Adrenal Responses Correlated with Blood Volumes, Surg. Gynec. & Obst. 111:163-169, 1960.
4. Abels, J. C. et al.: Metabolic Abnormalities in Patients with Cancer of Gastrointestinal Tract, Arch. Surg. 46:844, 1943.
5. Elman, R.: Protein Nutrition in Surgery, New York J. Med. 47:382, 1947.
6. Bell, Warren N.: Personal Communication to Authors.
7. Etsten, B., and Proger, S.: Operative Risk in Patients with Coronary Heart Disease, J.A.M.A. 159:845, 1955.
8. Denson, J. S., and Shapiro, E.: Medical Factors Influencing Anesthesia, M. Clin. North America 43:1191206, 1959.
9. Dorfman, W.: Challenge of Obesity, New York J. Med. 56:1642-1645, 1956.

INSIDE HEW

When Abraham Ribicoff was given a farewell party by the Department of Health, Education, and Welfare after he resigned as secretary to campaign for the U. S. Senate, the staff sang a song to the tune of South Pacific's "There Is Nothing Like a Dame," the lyrics of which reveal a mixture of astonishing candor, political pipesmoking, and congressional savvy:

"We have health insurance hand-outs
If you're over sixty-five,
The benefits are standouts
If you can just stay alive.

"The senate's gonna pass it
'Cause we've added lots of frills,
Who'll sit on it then?
Wilbur Mills!"

—AMA Legislative Roundup

Differential Diagnosis of Chest Pain

DAVID J. VAN LANDINGHAM, M.D.
Jackson, Mississippi

In addition to myocardial infarction and coronary insufficiency, there are a number of other disorders which may cause chest pain. The author presents a classification of these disorders according to structure of origin and discusses the major ones in terms of etiology and character of pain and differential diagnosis. He concludes with a review of 190 office patients with complaints of chest pain.

I THINK IT IS DESIRABLE that physicians give patients a more careful hearing in the description of their chest pains and make every effort to determine first, that they have or do not have heart disease and second, the nature and cause of their pain. There are instances in which the individual may have a mild degree of some heart disease, even coronary insufficiency, which can be determined by the Master's two-step test, but this coronary artery disease is not in itself sufficiently severe to produce pain or to disable the individual. In such cases the patient's pain arises from some other source. When the cause is found, explained to the patient, and treated, the pain may cease to be disabling because the patient is then satisfied that he does not have a severe heart disease with impending death.

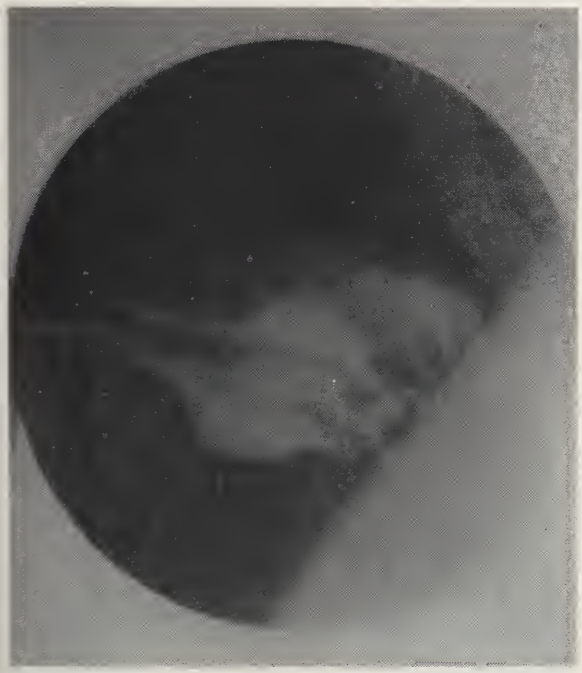


Figure 1. X-ray of a 51-year-old white male who complained of severe substernal pain coming on while lying down. A barium swallow proved this to be due to a hiatus hernia. The EKG, x-ray of chest, SGOT, white counts and sedimentation rate were all normal in this patient.

Consider the character of the pain itself. The superficial or tegumental structures give pain which is usually burning, sharp, or stabbing, well localized, and not referred remotely. It frequently is brought out or aggravated by light to moderate palpation. Visceral pain and deep somatic pain, i.e., pain of deep structures such as bones, joints, tendons, and ligaments, are dull aches more like toothaches or muscle cramps, or if there is actual inflammation, the pains may be throbbing. These aforementioned pains are not well localized, but the pain of angina pectoris or coronary insufficiency is in itself a dull pain, deep behind the sternum, variously described as a heavy pressure, a squeezing sensation, a heavy weight, or a cramping. I derive considerable relief from a patient's telling me that his pain is sharp and stabbing, for I can be reasonably certain from the outset that his pain, in all probability, is not cardiac in origin.

To facilitate an orderly discussion, a classification of chest pain according to the structure of origin in presented in Table I. This classification is a modification of that presented in Harrison's *Principles of Internal Medicine*.[1] Since the purpose of this paper is to discuss causes of chest

Read before the Section on Medicine, 94th Annual Session, Mississippi State Medical Association, Jackson, May 7-10, 1962.

pain other than those of cardiac origin, myocardial infarction and coronary insufficiency will not be discussed at length. I should like to emphasize, however, that pain of myocardial infarction and coronary insufficiency is believed to be due to ischemia or a discrepancy between supply and demand of oxygenated blood to the heart muscle. The afferent sensory fibers from the heart pass by way of the sympathetic pathway to the upper four dorsal posterior roots and thence into the spinothalamic tracts. Sensory fibers are also received by the first dorsal and possibly through the second dorsal nerves from the shoulder and arm; so it is not surprising that a stimulus for pain arising in the heart is often referred to the remote structures supplied by these same dermatomes. Other structures within the thoracic cage, such as the aorta, the esophagus, the pleura, the trachea, the bronchi, and the upper chest wall, also send afferent fibers into these same upper dorsal segments, and stimuli arising from these structures may also give referred pain to the shoulder and arm.

TABLE I
CLASSIFICATION OF CHEST PAIN—ETIOLOGY

- I. Pain arising from the heart
  - A. Pain due to myocardial anoxia
    - 1. Angina pectoris
    - 2. Myocardial infarction
    - 3. Heart failure
    - 4. Paroxysmal tachycardia
  - B. Pericarditis
  - C. Cardiac neurosis or psychogenic pain
- II. Pain arising from other intrathoracic structures
  - A. Aorta
    - 1. Aortitis
    - 2. Dissecting aneurysm
  - B. Pulmonary artery
    - Pulmonary embolism
  - C. Lungs, pleura, bronchial tree
    - 1. Pneumonia
    - 2. Pleurisy
    - 3. Broncho-tracheitis
    - 4. Pneumothorax
    - 5. Carcinoma
  - D. Mediastinum
    - 1. Enlarged nodes
    - 2. Mediastinal emphysema
  - E. Esophagus
    - 1. Globus hystericus
    - 2. Esophagitis
- III. Pain referred to chest from abdominal organ
  - A. Stomach
    - 1. Distension with aerophagia and pylorospasm
    - 2. Hiatus hernia
  - B. Biliary disease
  - C. Spleen
  - D. Pancreas
  - E. Splenic flexure
- IV. Pain of musculoskeletal origin
  - A. Neck
    - 1. Cervical disc disease
    - 2. Brachial plexus neuritis
  - B. Dorsal spine
    - 1. Acute spondylitis (Marie-Strumpell's)
    - 2. Intercostal neuritis
  - C. Chest wall
    - 1. Myositis
    - 2. Contusion
    - 3. Muscle strain or fatigue, labor asthma
    - 4. Costochondral junction syndrome

Pericarditis is a condition which often gives rather intense pain that may wax and wane. The pain of pericarditis is thought to be due to involvement of the contiguous pleura occurring in inflammatory types of pericarditis, such as the acute benign pericarditis and tuberculous pericarditis. This is assumed to be so because quite distinct pericardial friction rubs in uremia and myocardial infarction may be heard without the characteristic pain of pericarditis. The pain of pericarditis, as a rule, is synchronous with the heart beat and is often associated with some respiratory symptoms and fever.

Pain arising from the aorta is associated with



Figure 2. An x-ray showing a splenic flexure distended with gas and its close relationship to the heart. This is a common cause of pain in the left chest and when the pain is severe, it may be transmitted to the left shoulder and arm.

three common conditions: (1) an aneurysm of the aorta in which there is stretching of structures and pressure against structures, (2) an aortitis (either a syphilitic aortitis or an arteriosclerotic or atheromatous aortitis that encroaches upon the coronary ostia) which gives pain typical of angina pectoris, (3) a dissecting aneurysm of the aorta which causes an excruciating, tearing pain frequently referred to the back and down into the abdomen as the dissection progresses. The dissecting aortic aneurysm is associated with shock, great apprehension, and is frequently associated with diminution of pulses of the involved branches as they arise from the aorta, either the carotids, the radials, or the femoral and pedal pulses.

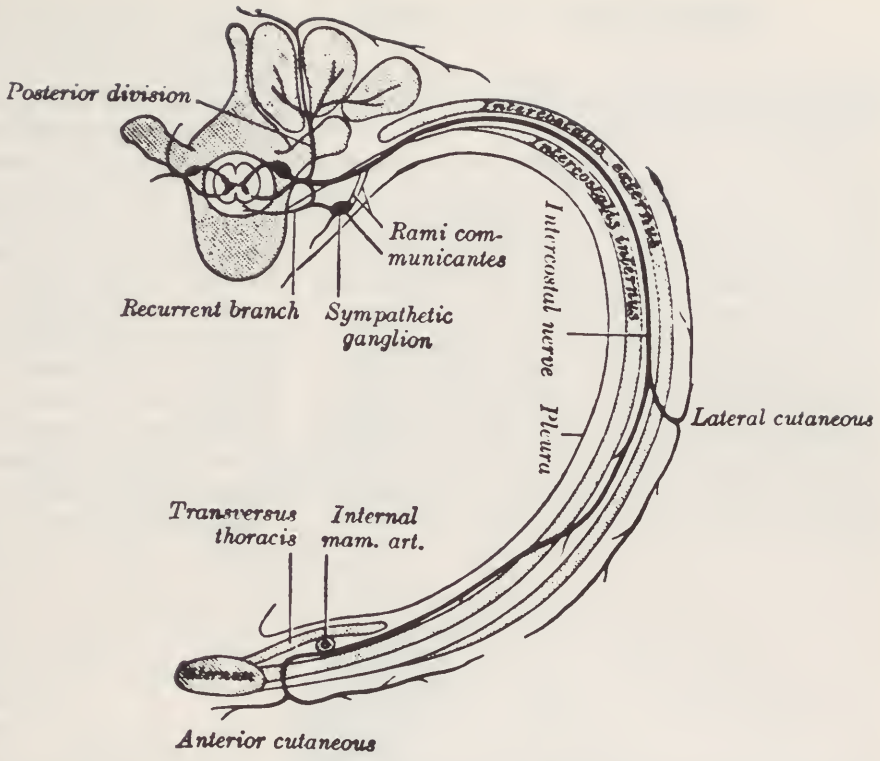


Figure 3. Plan of a typical intercostal nerve showing the pathway of radiation of pain to anterior chest from posterior nerve root involvement. (Reprinted from Gray, Henry, and Lewis, Warren H.: Anatomy of the Human Body, Philadelphia, Lea and Febiger, 1942.)

The most common involvement of the pulmonary arteries is a pulmonary embolism. The suspicion of this condition is not aroused often enough and many cases are missed completely, primarily because pulmonary embolism is not considered. Careful search for some indication of thrombosis of deep veins of the legs or of prolonged abdominal tenderness, an elevation in temperature, white count, or sedimentation rate, the feeling of apprehension or depression on the part of the patient, increased pulse rate or respiratory rate, changes in the electrocardiogram, and, of course, changes in the x-ray of the lungs should all be looked for and, if found, should arouse the consideration of pulmonary embolism.

Pain-producing conditions of the lungs, bronchi, and pleura include pleurisy, pneumonia, benign tumors and cysts, malignant tumors of the pulmonary structures, enlarged lymph nodes, a tracheitis, and a pneumothorax. Most of these conditions can be diagnosed by a simple x-ray of the chest. The simple acute pleurisy and a tracheitis will not be revealed by an x-ray of the chest, but the characteristic stabbing pain with deep inspiration and cough and the probable presence of a friction rub should serve to establish the diagnosis of acute pleurisy. The pain of a tracheitis is a burning, rasping pain which is present almost exclusively with the cough.

Another group of conditions causing chest pain are those conditions arising from the abdominal organs, particularly the gastrointestinal tract. These include distention of the stomach, cholecystitis, biliary colic, pancreatitis, infarction of the spleen or splenitis, esophagitis or esophageal ulcer, a hiatus hernia, and globus hystericus (Figure 1). Usually with any of these conditions there will be accompanying gastric symptoms such as belching, an increase in symptoms with certain foods, or relief of the symptoms with the taking of antacids or antispasmodics. In doubtful cases of chest pain, one should always investigate the GI tract with appropriate x-ray studies and appropriate chemistry studies reflecting liver and pancreatic disease. These would include a bilirubin, an alkaline phosphatase, a BSP, and an amylase. A gastric ulcer high in the cardium will give substernal pain and has completely fooled me on one occasion. Although it was looked for, it was not recognized, and the patient continued to be treat-

ed for angina pectoris for several months before the gastric ulcer was discovered by another physician and another radiologist.

One other condition involving the gastrointestinal tract which should be emphasized is the splenic flexure syndrome. The splenic flexure is situated very high under the left costal margin behind the stomach and may actually be above and behind the apex of the heart (Figure 2). Gaseous distention of this segment of the colon gives somatic pain deep within the thoracic cage which is not infrequently referred to the left shoulder area. I remember one patient in particular who habitually got me out in the middle of the night and at other odd hours complaining of the chest pain he feared was cardiac in origin. On several such occasions I brought him to the office and fluoroscoped him or took a chest film to demonstrate the distended splenic flexure. Through this procedure, he was finally convinced that it was the distended colon producing his pain and not heart disease. Though he occasionally has his pain, he does not worry about it, and he has not been seen for this now in several years. The abdominal organs, including the stomach, portions of the small intestine, the gallbladder, bile ducts, and the splenic flexure, are supplied by fibers from the celiac and aortic plexuses, which derive their fibers from the lower seven thoracic ganglia. It is not surprising then that affections of the upper abdominal organs may give pain referred to the chest. Disturbance within the abdomen should be constantly considered as the cause of the chest pain.

Pain arising from the chest wall itself may be due to an injury, such as a contusion, a fractured rib, or to a costochondral separation which will not show on the x-ray, but the site of pain and its reproduction by pressure over the costochondral junction and sometimes a snapping or popping sound or sensation should serve to establish the diagnosis. Muscle fatigue following some prolonged and strenuous activity involving the pectoral muscles may lead to swelling of muscles fibers with a soreness and aching pain within the chest wall. An intercostal neuritis is a common cause of chest pain, and frequently the site of pain is only in the anterior chest and if on the left side, in the region of the heart (Figure 3). There is always a tenderness along the involved intercostal space, and this area of tenderness extends farther back along the intercostal space beyond the circumscribed limits of pain. Searching along the paraspinal area at the level of the involved nerve root, one can usually elicit point tenderness over the nerve root of the involved costal nerve. This frequently reproduces

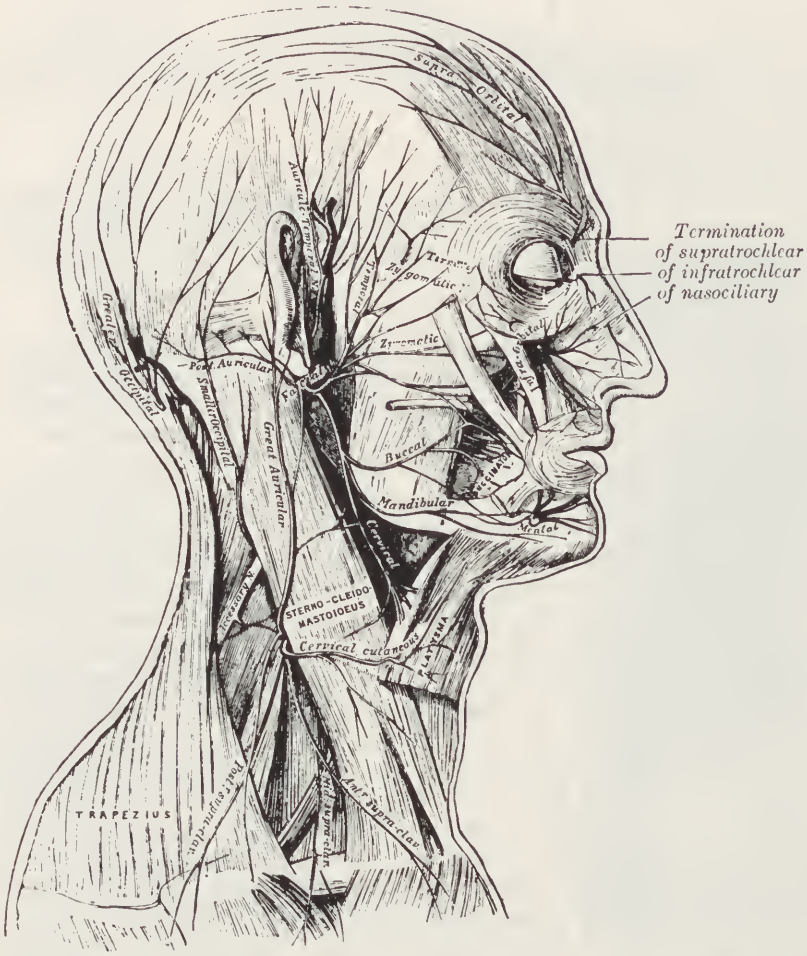


Figure 4. Note that the anterior supraclavicular and the middle supraclavicular, which are derived from the cervical plexus, cross the clavicle and supply muscles of the anterior chest. (Reprinted from Gray, Henry, and Lewis, Warren H.: Anatomy of the Human Body, Philadelphia, Lea and Febiger, 1942.)

the pain in the anterior chest of which the patient first complained. This pain can be greatly alleviated or completely stopped for a few hours or permanently relieved by the simple injection of ½ per cent Xylocaine at the nerve root of the involved intercostal nerve.

I recall one classic example of a carpenter who fainted while on his job on a scaffolding. He did not fall to the ground, but fell back against the scaffolding floor. When he regained consciousness, he was brought down and taken to a hospital. Later he developed chest pain in the "area of his heart." During this period, he concluded that he had suffered a heart attack and that the pain in his chest was heart pain. At the time I saw him, he was totally disabled and was being given total disability and compensation by the VA Hospital and also by the Workmen's Compensation Commission. The results of the electrocardiogram and a double Master two-step test were completely normal. The patient was then given ½ per cent Xylocaine at the left fifth thoracic nerve root and promptly obtained relief. I saw him several times within the next month, and he told me each time that he had no return of the chest pain. When I asked him when he was going back to work, he informed me that he wanted to be sure that his heart was not causing the pain, and since the checks were still coming, he was going to "let well enough alone" for awhile. I asked him how long it would take to be convinced, and he said, "I don't know; it might take a hundred years." I bring this out to emphasize that a disservice may be done not only to the patient by a misdiagnosis that puts him on a disabled list and entitles him to unnecessary government compensation, but also to the taxpayer whom it costs tax dollars. Another type of neuritis bearing special mention is herpes zoster which, of course, is very simply diagnosed by disrobing the patient.

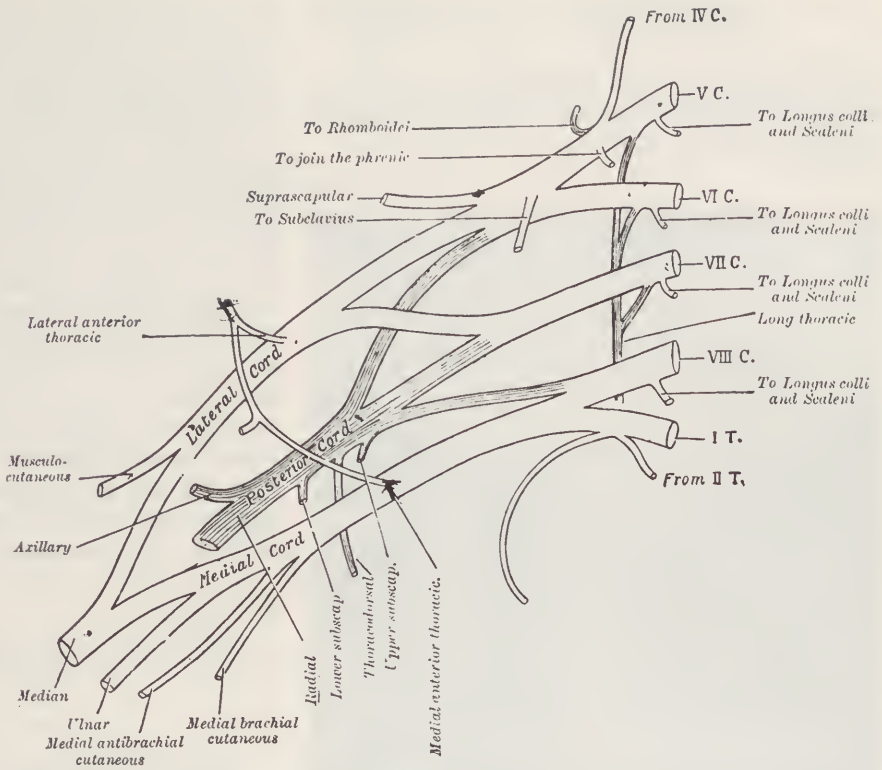


Figure 5. Note that the lateral anterior thoracic nerve and the medial anterior thoracic nerve receive fibers from the fifth cervical through the first thoracic nerve roots. (Reprinted from Gray, Henry, and Lewis, Warren H.: Anatomy of the Human Body, Philadelphia, Lea and Febiger, 1942.)

Another area causing pain in the chest is the neck. This is an area often overlooked for investigation. I routinely take an x-ray of the cervical spine if there is any question of chest pain involved. In this day of the automobile and football, injuries to the neck are extremely common. Notice in Figure 4 (which is from Gray's *Anatomy*[2]) that the anterior supraclavicular nerves and the middle supraclavicular nerves, which are derived from the third and fourth cervical nerve roots, extend across the clavicle. According to Gray's *Anatomy*,[2] they supply the skin over the pectoralis major and the deltoid, communicating with the cutaneous branches of the upper intercostal nerves.

In Figure 5 (also from Gray's *Anatomy*[2]), notice particularly that the long thoracic nerve derives branches from the fifth, sixth, and seventh cervical nerve roots and supplies fibers to the serratus anterior, pectoralis major, and pectoralis minor. Although it carries no sensory afferent fibers, it may be responsible for deep somatic pain by producing muscle fatigue of the affected muscles. The longus colli muscle arises from the front of the bodies of the first two or three thoracic vertebrae. Chest pain can be produced by fatigue of this muscle and, indeed, is quite common in this

day of rapid pace and high tension. This chest pain can be reproduced by hyperextension and hyperflexion of the neck.



Figure 6. An x-ray of the cervical spine in the lateral view showing narrowed intervertebral spaces at C3-4, C4-5, and C5-6 with osteoarthritic spurring particularly prominent posteriorly at C5-6. This is the x-ray of a 63-year-old white male who had a proven myocardial infarction but who continued to have intermittent sharp stabbing pain in the left anterior chest and left arm with paresthesia in his left hand characteristic of brachial plexus nerve root compression. He was completely relieved of his pain by cervical traction.

A lateral view of the cervical spine (Figure 6) will frequently reveal the narrowed intervertebral space of a degenerated intervertebral disc with the osteoarthritic changes, including spurring along the posterior borders of the adjacent vertebrae. This may account for nerve root pressure involving some of the aforementioned nerve roots and their nerves to the skin or muscles of the anterior chest. Again, movements of the neck will often reproduce or aggravate the pain. A good history also will reveal that the patient frequently sleeps on his stomach and that he will have pain at night. It is quite the usual thing for pain to occur between the shoulder blades in the trapezius or rhomboid muscle area, and for there to be pain in the shoulders or arms. Quite often paresthesias of the hands and fingers (described as "going to sleep of the hands") occurs while the patient is lying down, but without his lying on the affected arm. There may be loss of strength of grip, so that the patient gives a history of dropping things. It is not at all unusual to have a patient with a history of heart disease with angina pectoris and congestive failure who, instead, has chest pain due only to degenerated cervical disc disease and a shortness of breath due to emphysema. Hearts in most of these individuals have been normal, as far as we can measure objectively. Two important items in their histories are first, that they have rather severe dyspena with exertion, yet no orthopnea, and second, that they have pain while lying down at night, often worse than when they are up and about during the day.

The one last condition that bears mentioning is cardiac neurosis. For this disease, there is often

TABLE II

CHEST PAIN—NUMBER OF CASES AND PERCENTAGE OF TOTAL

Chest Pain	*No. of Cases*	*Per Cent of Total*
Myocardial infarction	11	5.5
Heart failure	2	1.0
Coronary	17	8.5
Pericarditis	1	0.5
Psychogenic pain	5	2.5
Aortitis	1	0.5
Tuberculosis	2	1.0
Pneumonia	4	2.0
Pleurisy	3	1.5
Tracheitis	12	6.0
Carcinoma (lung)	1	0.5
Mediastinal emphysema	2	1.0
Globus hystericus	3	1.5
Goitre	1	0.5
Splenic flexure	5	2.5
Musculoskeletal disorders	9	4.5
GI unspecified	16	8.0
Cervical neuritis	9	4.5
Cervical disc disease	31	15.5
Intercostal neuritis	25	12.5
Rheumatoid arthritis	1	0.5
Myositis	6	3.0
Asthma	2	1.0
Costochondral junction syndrome	1	0.5
Trauma	4	2.0
Unknown	9	4.5

no satisfactory explanation of the pain; yet the patient is convinced that he has heart disease of a severe nature. He has such a heart awareness that any alteration of the heart from its resting state will produce symptoms which he interprets as pain. All too frequently cardiac neurosis is iatrogenic in origin; we physicians either misinterpret our findings or the patient's history or do not take time for an accurate history and a thorough search. Too often, we physicians deem it best not to take a chance with the patient's life; thus we restrict his activity telling him that he has heart disease which threatens his life. I hope some of the causes of chest pain mentioned in this paper will be remembered and will be helpful in encouraging a more exact diagnosis of chest pain, obviating the danger of creating a cardiac neurosis. Although the list certainly is not complete, it should include probably 98 to 99 per cent of the causes of chest pain in office patients.

Table II covers a review of 550 consecutive records on office patients only, including 190 complaints of chest pain, either as a chief complaint or as noted in the review of systems. From my own experience, I have found the most common causes, aside from myocardial infarction and angina pectoris per se, to be (1) degenerative cervical disc disease, (2) intercostal neuritis, (3) musculo-skeletal disorders, (4) unspecified GI, and (5) splenic flexure syndrome. ★★★

514-E East Woodrow Wilson

REFERENCES

1. Harrison, T. R.: Principles of Internal Medicine, Philadelphia, McGraw-Hill, 1951, p. 22.
2. Gray, Henry, and Lewis, Warren H.: Anatomy of the Human Body, Philadelphia, Lea and Febiger, 1942.

RECIPROCAL TRADE

The young mother received the pediatrician's statement for treating her son for measles. She thought the bill too high and called the doctor to complain.

"You forget," the physician reminded, "that I made eight house calls while your boy was ill."

"And *you* forget," she retorted, "that it was my Johnny who infected the entire fourth grade!"

—Eddie Foy, Jr., in *Parade*

Radiologic Seminar VI: Pulmonary Histoplasmosis

ROBERT P. HENDERSON, M.D.
Jackson, Mississippi

PULMONARY HISTOPLASMOSIS may assume many forms, but the subclinical form resulting in intrathoracic calcifications is the usual radiologic manifestation of the disease. In this region where histoplasmosis is endemic, multiple, scattered, parenchymal calcifications; calcifications larger than six mm.; stippled or "mulberry" calcifications in the hilar or paratracheal regions exceeding one centimeter in diameter; and calcifications in the spleen are usually due to histoplasmosis and not tuberculosis. A typical example of healed histoplasmosis is shown in Figure 1.

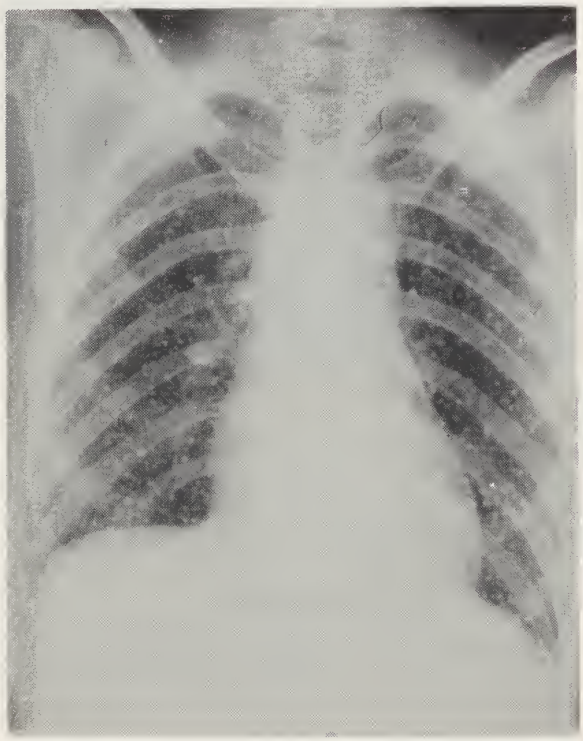


Figure 1. Typical pattern of healed histoplasmosis, often occurring as an incidental finding in a patient without an antecedent history of an acute febrile respiratory illness.

The active forms of the disease which may be recognized clinically fall into three general categories: (1) a segmental infiltration with local hilar adenopathy resembling the primary childhood type of tuberculosis, (2) spherical or "coin" lesions which on healing may show laminated calcific rings, as may a tuberculoma, (3) an acute disseminated form with miliary or small patchy densities diffusely distributed throughout the lungs.

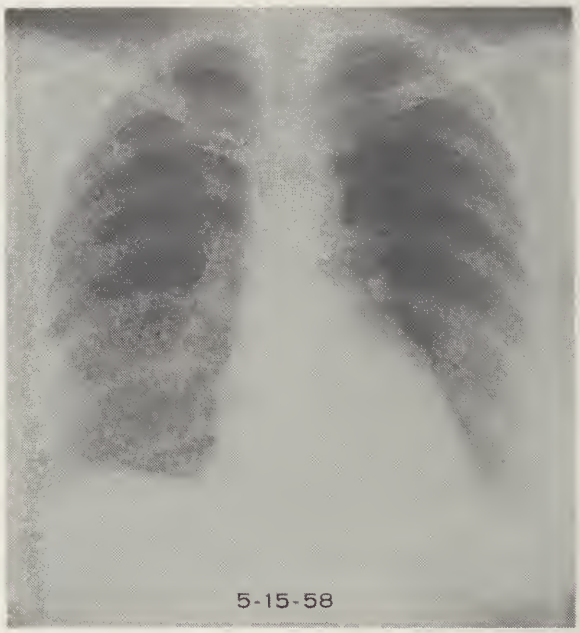


Figure 2. The initial radiograph, obtained 24 hours after the onset of clinical symptoms, reveals no pathology.

Sponsored by the Mississippi Radiological Society.
From the Department of Radiology, Mississippi Baptist Hospital.

The case illustrated in Figures 2, 3, and 4 represents an example of acute disseminated histoplasmosis.

CASE REPORT

The patient, a 48-year-old white female, had been visiting her daughter's home three weeks prior to her admission. At this time her daughter was in the hospital with an acute febrile illness, which was diagnosed as histoplasmosis on the basis of a sternal marrow examination. While doing the housekeeping for her daughter, the mother had been watering some potted plants. These plants had been fertilized with chicken droppings, which had been supplied by a farm family about two weeks prior to the onset of her daughter's illness.

The patient was admitted to the hospital on May 15, 1958, because of chills and fever, general malaise and headaches of 24 hours duration. The admission chest radiograph was negative (Figure 2). Four days later a film revealed diffuse parenchymal pathology consisting of multiple, ill-defined, nodular densities with an associated mild bilateral hilar adenopathy (Figure 3). By June 2, 1958, there seemed to be a slight clearing of the widespread infiltration, and she was clinically much improved. Calcifications were first seen on Feb. 24, 1959, and since that time the radiographic appearance has been stable.

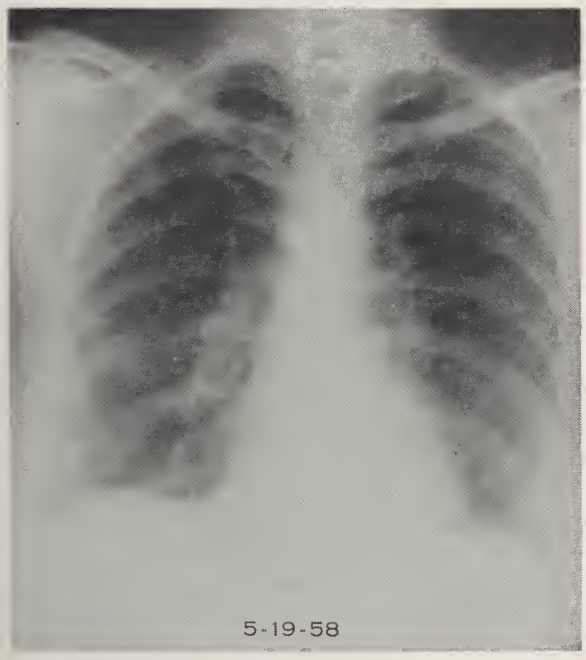


Figure 3. Five days after the onset of symptoms a film reveals moderately extensive patchy infiltration in the lungs with bilateral hilar adenopathy.

The daughter had a much more severe illness with similar but much more extensive parenchymal densities. Two months lapsed before there was any significant clearing of her lesions. Also involved in this same source of infection was a neighbor who had helped with the housekeeping for a few days.

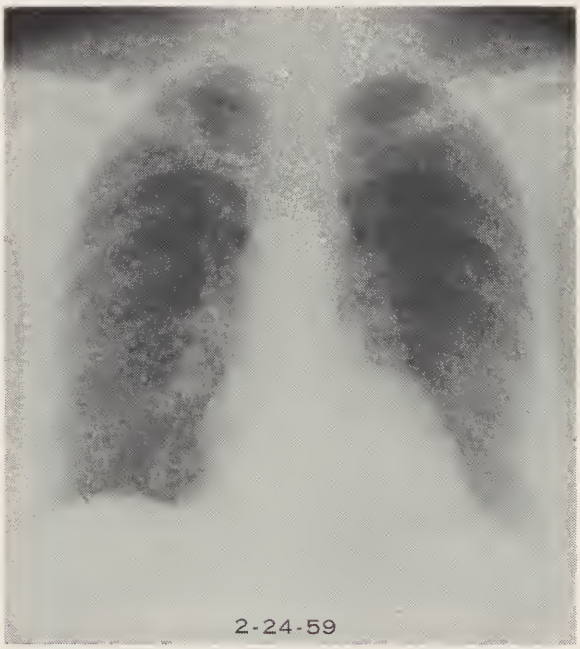


Figure 4. Nine months later the chest is clear save for a few scattered calcifications and slight fibrotic stranding. (A film four years later has an essentially similar pattern.)

Other less common pulmonary manifestations of histoplasmosis are atelectasis associated with hilar node enlargement, the right middle lobe being most commonly involved. Cavitary disease and pleural effusion are rare findings. Late sequelae include broncholiths and traction diverticula of the esophagus. ★★★

1190 North State Street

REFERENCES

1. Allen, J. H.: Bone Involvement with Disseminated Histoplasmosis, Am. J. Roentgenol. 82:250-254, 1959.
2. Hinshaw, H. C., and Garland, L. H.: Diseases of the Chest, Philadelphia, W. B. Saunders Company, 1956, p. 624.
3. Felson, B.: Less Familiar Roentgen Patterns of Pulmonary Granulomas, Am. J. Roentgenol. 81:211-223, 1959.
4. Serviansky, B., and Schwarz, J.: Calcified Intrathoracic Lesions Caused by Histoplasmosis and Tuberculosis, Am. J. Roentgenol. 77:1034-1041, 1957.

Clinicopathological Conference XXXIII

Conducted by the Department of Pathology
Mercy Hospital
Vicksburg, Mississippi

October's CPC concerns a 70-year-old postmaster who entered the clinic in October 1961 with a tentative diagnosis of a lesion in the left lung. X-ray studies at this time showed a well-defined 5 x 8 cm. density in the left upper lung and the clinical impression was bronchogenic carcinoma for which x-ray therapy was given. Examination of the chest in December 1961 after completion of x-ray therapy showed a marked decrease in the size of the previously described density. Examination of the chest in January 1962 showed further regression of the mass in the left upper chest but still some fibrosis and clouding. No definite mass was discernible, however. The patient died on Feb. 1, 1962, apparently from respiratory difficulty.

Discussers are Drs. J. Robert Shell, Tom B. Dominick, R. H. Fenstermacher.

Dr. J. Robert Shell: "The patient, a 70-year-old white postmaster, reported to the clinic for examination in October 1961 stating that he had had a routine x-ray from the mobile x-ray unit and was advised to have a large x-ray because of the question of a lesion in the left lung. The patient stated he had been doing fine over the past year. He had had some chronic cough but apparently little change from the past several years. He had felt weak for several months and had been taking vitamins on his own volition. There was no noticeable difference in his cough. He stated that at night he seemed to develop more congestion in his chest and produced sputum in the mornings. There had been no hemoptysis. He ate well and gave no other symptoms.

MEDICAL HISTORY

"The medical history revealed that the patient was hospitalized in 1957 for repair of a right inguinal hernia. Routine chest x-ray at that time showed no evidence of active pathology in the chest. He had been under observation as an outpatient in routine check-ups all his adult life and been treated with numerous medications for psoriasis. In February 1959, he was hospitalized for calculus in the right kidney and benign hypertrophy of the prostate. A stone was removed from the right ureter with a stone basket through a cystoscope and a transurethral resection of the prostate was done. In February 1960, he was hospitalized for influenza. X-ray of the chest at that time revealed nothing to indicate active pathology. He was hospitalized in June 1960, and x-ray disclosed increased pulmonary markings in the left base and right upper lobe and early peribronchial infiltration compatible with bronchopneumonia. He responded well to treatment and the chest cleared. Follow-up examination in September 1960, showed the lungs to be clear and the patient in good general condition.

"He was seen again in October 1961, because of the recommendation of the mobile x-ray unit. The systems history was entirely negative. On physical examination, the patient did not appear ill. The head and neck were negative. There was no cervical adenopathy. The blood pressure was 150/80. The lungs were clear except for some hypostatic fine rales in the bases. There was no alteration of percussion. The heart was of normal size, sounds, and rhythm. The abdomen was soft. There were no masses. Rectal examination was negative. Extremities were negative.

LABORATORY STUDIES

"The patient was admitted to the hospital for observation and given skin tests for histoplasmosis, blastomycosis, and tuberculosis. Skin tests were all negative. Laboratory studies showed a hemoglobin of 13.4 gm., hematocrit of 44, leuko-

cytes 12,700, 89 segmented neutrophils, 6 band forms, 5 lymphocytes. The urinalysis showed a specific gravity of 1.014, albumin negative, sugar negative, and microscopic examination not remarkable. Pulmonary functions showed a vital capacity of 88 per cent of predicted volume, maximum deep breathing capacity 41 per cent of predicted volume, timed vital capacity one second, 52; two seconds, 79; three seconds, 93 per cent and the maximum expiratory flow rate was 66 liters per minute. The electrocardiogram showed a sinus rhythm and right bundle branch block. This was not present on the tracing of February 1960.

FINDINGS ON BRONCHOSCOPY

"Bronchoscopy and left supraclavicular node biopsy were performed in October 1961, at which time five normal appearing nodes were removed from the supraclavicular fat pad. A No. 7 Jackson and Jackson bronchoscope was inserted and the right upper lobe, right middle lobe, and segmental orifices of the right lower lobe were patent and free of disease. The scope was passed into the left main stem bronchus and purulent material was noted and aspirated. It was sent to the pathology department for culture for acid fast bacilli and fungi and an examination for malignant cells. Further examination of the left main stem bronchus revealed that the left upper lobe bronchus and left segmental orifice of the left lower lobe were patent and free of disease. The final diagnosis at that time was no evidence of cancer grossly in the left supraclavicular nodes and normal bronchoscopy. Cultures from these materia revealed gram positive tetrads, gram negative diplococci, and rare gram positive streptococcus. A bacterial sensitivity test was not done. Smears were negative for acid fast bacilli and fungi. Acid fast and fungus cultures revealed no growth.

"Following bronchoscopy, the patient experienced severe respiratory difficulty in the recovery room and obviously had marked diminished respiratory reserve. In view of the x-ray findings and physical picture, surgery was not contemplated. The clinical impression was bronchogenic carcinoma and the patient was started on x-ray therapy Oct. 30, 1961. A tumor dose of about 4000 r. was given through several ports which the patient tolerated quite well.

"The patient was readmitted on Dec. 7, 1961, because of recurrence of fever, nausea, and loss of appetite. The patient looked well and had gained some two and one-half pounds. The lungs were about the same clinically. There were some basal rhonchi. There was some x-ray reaction of the skin, anteriorly and posteriorly. His cough and fever responded to symptomatic care of bronchitis and he was given 30 mg. of nitrogen mustard during his hospitalization. He was dismissed on Dec. 16, 1961.

"The patient was readmitted on Jan. 8, 1962, again having run fever for a week. He had experienced some cough but no hemoptysis. He had been taking antibiotics intermittently. There had been very little sputum present. He was admitted to the hospital with a diagnosis of carcinoma of the left lung. The patient's course was progressively downhill. He was considered a nonoperative case on admission because of cardiac disease and severe pulmonary disease. His antibiotics had consisted of Chloromycetin and also an extended course of Gantrisin. His breathing became more labored, he became cyanotic, had cyanotic fingernail beds, and peripheral cyanosis. There were tight wheezes bilaterally in the lungs and he was begun on nasal oxygen. The patient continued a downhill course with the supportive care of oxygen. Auscultation revealed findings about the same with rales in the entire left lung and a dry right lung. He remained cyanotic much of the time, and expired rather quietly, apparently a respiratory death, on Feb. 1, 1962."

X-RAY OBSERVATIONS

Dr. Tom B. Dominick: "Chest x-ray examination in February 1959, as well as prior x-rays of the chest revealed no evidence of infiltration, consolidation, or effusion in either lung. The diaphragm was normal in position and smooth in outline. Cardiac and aortic shadows were within normal limits and there was no evidence of active pathology in the chest. Subsequent re-examination of the chest in February 1960, revealed a very minimal increase in perihilar markings but no consolidation or effusion. Cardiac and aortic shadows were still within normal limits and there was again nothing to indicate active pathology in the chest.

"Examination in June 1960, and comparison with the film taken four months previously revealed an increase in pulmonary markings of the left base and right upper lobe with early peribronchial infiltrative changes compatible with bronchopneumonia. Re-examination of the chest after an interval of eight days showed some diminution in intensity of the markings in the right upper lobe with little or no change in the markings in the left lower lobe. This appeared to represent some resolution in the recent pneumonic infiltration.

"Re-examination of the chest in several projections after an interval of 16 months and at the

time of admission for what proved to be his terminal illness revealed a very marked change in the radiological findings (Figure 1). There was



Figure 1. X-ray on admission.

now present a well-defined 5 x 8 cm. density in the left upper lung adjacent to the arch of the aorta. A review of the previous x-ray studies showed no evidence of any suggestion of such a change. The lower portion of this left lung field was relatively clear. The right lung field was not remarkable and the cardiac shadow was within normal limits. These findings indicated a rather large and well-defined soft tissue mass extending from the region of the upper pole of the left hilum into the lung field. The appearance was consistent with that of a primary malignancy of the lung. The general appearance did not seem to be that of any common type of infection although occasionally blastomycosis produces this appearance of a localized mass in the pulmonary field.

"Subsequent examination of the chest approximately one month later revealed no apparent change. The soft tissue mass was about the same in size and configuration and these findings were still considered to be consistent with primary malignancy involving the left upper lung. Re-examination of the chest following an interval of three weeks and after completion of x-ray therapy revealed a rather marked decrease in the size of the previously described density in the left upper lobe (Figure 2). There was still some residual pathology present but the outline was not well defined. One small rounded nodule at the margin of the larger shadow was still fairly prominent. This would indicate regression of the mass in the left upper lung and no new alteration in either lung field.

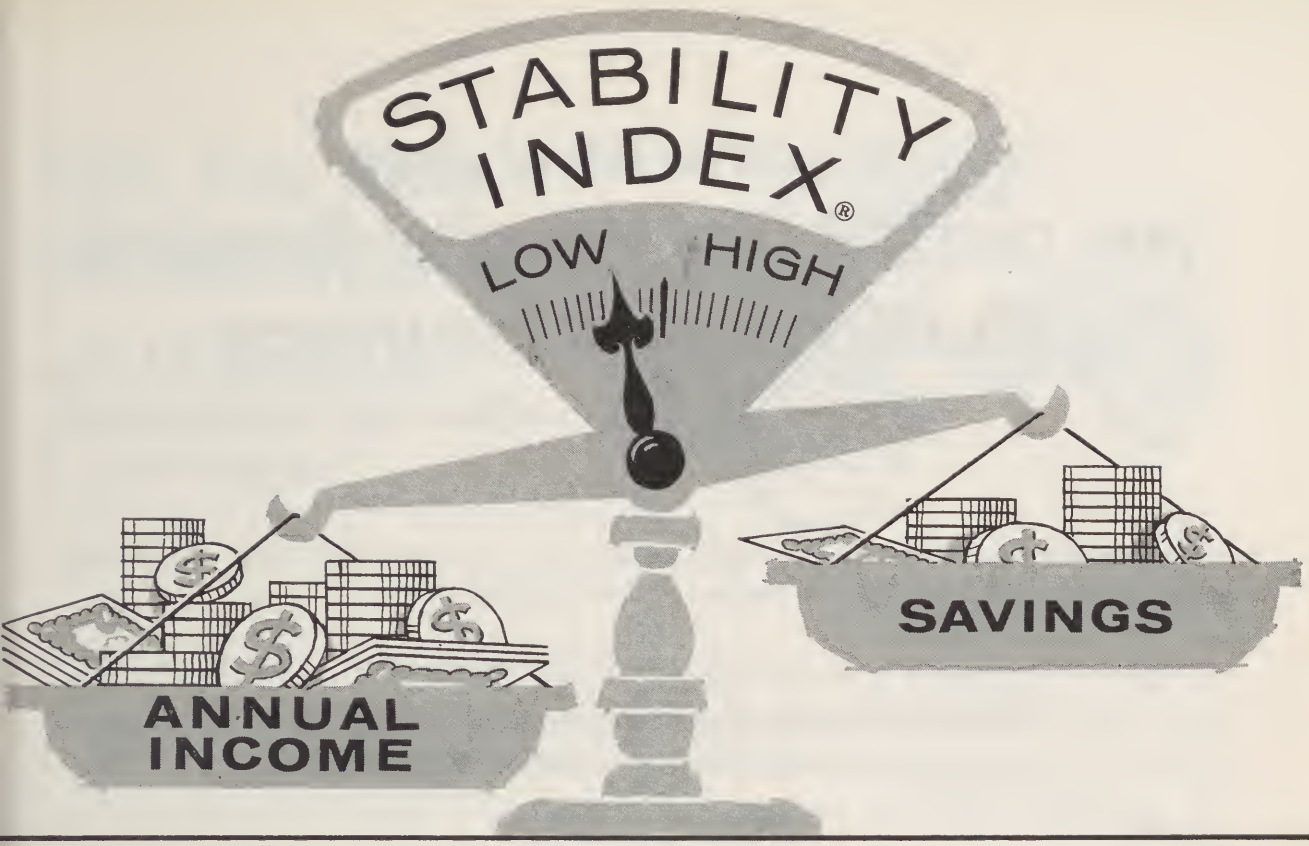
"The final examination of the chest after an interval of one month revealed further regression of the mass in the left upper chest but still some fibrosis and clouding in this area. No definite mass was discernible. There was however more fibrosis and infiltration in the right lung adjacent to the mediastinum and at the extreme base of the left lung there was also an area of infiltration which was not present on previous studies. The cardiac shadow was still within the upper limits of normal."

AUTOPSY FINDINGS

Dr. R. H. Fenstermacher: "Pertinent findings were limited essentially to the chest. The right pleural cavity contained no excess fluid but dense fibrous adhesions were present at the right apex and over the posterior surfaces of all lobes of this



Figure 2. X-ray after irradiation therapy.



How does your STABILITY INDEX® balance up today?

Savings equal to at least one year's income—that's the Stability Index formula which thousands of First Federal's savers follow as they add regularly to their savings accounts. They've set a goal for themselves—and the habit of regular saving each payday is the way they'll reach that goal . . . **Regular saving**—$5 a week, $10 a month, or whatever amount you choose—has the security of a wise investment as you improve your Stability Index . . . **Perhaps you want** a new boat for fun and fishing on the Reservoir a few years from now. Perhaps it's a new car, or a new house, or an exciting vacation you want instead. Or maybe you're thinking ahead to the time when you'll have expenses of a college education or the need for retirement security.

Whatever your purpose, a First Federal savings account will help you reach your goal. Accounts are insured by a permanent agency of the Federal government . . . your savings are readily available for withdrawal . . . and the experience of First Federal's directors and staff assures sound, conservative management of your money. Visit us soon, or open your account by mail (P. O. Box 1818) and start building your Stability Index to a high level of financial security.



FIRST FEDERAL SAVINGS
AND LOAN ASSOCIATION

WESTLAND BRANCH at ROBINSON ROAD | **MAIN OFFICE: CAPITAL AT STATE ST.** | MEADOWBROOK BRANCH at NO. STATE STREET

JACKSON, MISSISSIPPI

"If you're 65 or over, you can get fine Hospital-Surgical-Nursing Home Insurance

without any health exam!"

No matter how old you are—65, 75, 85, 95, 105 or more—you can obtain this fine Mutual of Omaha Senior Security plan!

SENIOR SECURITY is the plan you've been hearing about which provides fine hospital, surgical and nursing home benefits!

YOUR HEALTH DOESN'T MATTER! Yes, now you can get this coverage regardless of past or present health!

COVERS PRE-EXISTING CONDITIONS, TOO! Your Senior Security policy even covers pre-existing conditions that recur after six months!

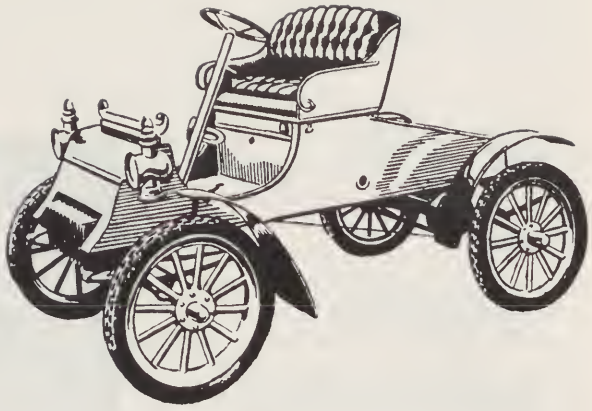
SENIOR SECURITY RENEWAL GUARANTEE. Your Senior Security plan can never be canceled because of your age, health or number of benefits received. Even the premium cannot be changed or the policy canceled unless such action is taken on all Senior Security policies in your state!

ACT RIGHT NOW!

Mutual of Omaha provides health insurance for more than 1,250,000 persons 65 and over!

Enrollment begins Oct. 1, ends Nov. 15! Write or phone today for all the facts about cost and coverage of the "Senior Security" plan available in your state! No health exam, no age limit if you act fast!

Did You Ride in This Kind of of Horseless Carriage?



JUST AS TRANSPORTATION has advanced from the horseless carriage to today's space vehicles, so has Mutual of Omaha's health plans kept pace with the changing needs of modern society. Today any Mississippian over 65 can get Mutual of Omaha's famous Senior Security plan that helps pay for the finest hospital-surgical-nursing or convalescent home care. It doesn't matter about your age or your past or present health.

Benefits are paid locally through Vestal and Vernon, Mississippi General Agents. Full information may be obtained from the state office or any of its statewide representatives.

Mutual OF OMAHA
MAXIMUM BENEFITS · MINIMUM COST ®
YOUR GOOD NEIGHBOR

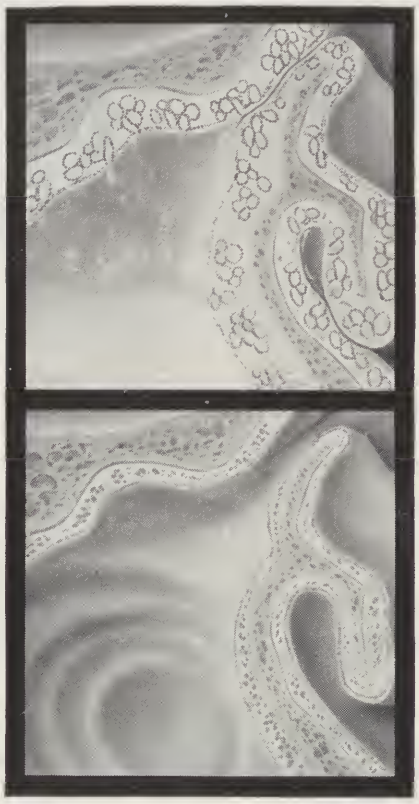
MUTUAL OF OMAHA
YOUR GOOD NEIGHBOR
MUTUAL BENEFIT HEALTH & ACCIDENT ASSOCIATION
HOME OFFICE
OMAHA, NEBRASKA

Vestal And Vernon

Mississippi General Agents

269 East Pearl Street
P.O. Box 1756
Jackson 5, Miss.

In colds and sinusitis unsurpassed in providing drainage space without chemical harm



The clogged sinus
In sinusitis, the mucous membrane becomes hyperemic and edematous, lymph glands and goblet cells hyperactive. Ostium is closed by edema and secretions cannot drain freely.

The normal sinus
Magnified anatomy of a portion of maxillary sinus showing mucous membrane with cilia and lymph glands. Ostium is normal and patent.

NEO-SYNEPHRINE®

brand of phenylephrine hydrochloride

hydrochloride

NASAL SPRAYS AND SOLUTIONS

When there is nasal turgescence, tiny orifices of sinus ostia tend to clog. Neo-Synephrine nasal solutions and sprays reduce edematous tissues on contact to provide prompt relief. As turbinates shrink, obstructed sinus ostia open, drainage and breathing become freer and the boggy feeling of a cold disappears.

Delicate respiratory tissue and its natural defenses are not harmed by exceptionally bland Neo-Synephrine; systemic effects are nil; it does not sting. For years it has been recommended for prevention and treatment of sinusitis.[1-3] Repeated applications do not lessen effectiveness.

Available in plastic nasal sprays for adults (½%) and children (¼%), in dropper bottles of ⅛, ¼ or 1 per cent.

Winthrop LABORATORIES
New York 18, N.Y.

1. Grant, L. E.: Coryza and nasal sinus infections, **Clin. Med. & Surg.** 42:121, March, 1935. 2. Putney, F. J.: Sinus infection, in Conn, H. F. (Ed.): Current Therapy 1952, Philadelphia, W. B. Saunders Company, 1952, p. 110. 3. Simonton, K. M.: Current treatment of sinusitis, **Journal-Lancet** 79:535, Dec., 1959.

lung. The left pleural cavity contained approximately 350 cc. of yellow-brown, slightly turbid fluid. Gray-yellow fibrinous exudate was present on the pleural surface of the left upper lobe and the upper portion of the left lower lobe and dense fibrous adhesions were present at the left base. Both lungs were moderately anthracotic and the right lung weighed 640 gm. and the left lung 620 gm. Several moderate sized anthracotic lymph nodes were present in the hilar region. Both lungs were firm in consistency and did not collapse except marginal portions of the right upper and middle lobes showed some bullous emphysema. Small, firm, shotty nodules were present just beneath the pleural surface of the right lung particularly in the lower lobe and to a lesser extent in the subpleural lung parenchyma in the left upper lobe (Figure 3).



Figure 3. Lungs, gross appearance.

"Cut surfaces of both lungs revealed a diffuse patchy consolidation with firm nodular appearance and reddish-brown and gray color. This patchiness and consolidation was fairly pronounced in the left upper lobe extending from the hilar regions to the subpleural portions of the lung. In some areas there seemed to be more extensive firmness and grayish-brown discoloration than in the remaining lung tissue. The left upper and lower lobes were densely adherent at the interlobar septum. Small cyst-like spaces were present in the more densely consolidated portions of the left lung and occasional small pinhead-sized abscess-like areas were noted. The bronchi generally contained a clear or grayish-mucoid secretion and a more purulent type of exudate was present in some of the terminal smaller bronchi of the left lung. Minute examination of the entire tracheobronchial tree failed to reveal any type of bronchogenic tumor. The firmness, apparent fibrosis, and consolidation in both lungs, particularly in the left upper lobe, on gross inspection did not resemble neoplastic tumor.

"The heart weighed 390 gm. The heart muscle was moderately soft in consistency with a few small areas of focal fibrosis in the interventricular septum. The wall of the left ventricle measured 1.5 cm. in thickness and the right ventricle 6 mm. The right ventricle was markedly dilated. There was moderate atherosclerosis in the left coronary artery. The brain weighed 1,320 gm. The meninges were markedly congested. Cerebral convolutions were moderately flattened and the brain was extremely edematous. There was no evidence of hemorrhage, infarction, infection or new growth in the brain.

"Microscopic study of the lung showed extensive interstitial fibrosis in all lobes of both lungs but more pronounced in the upper left lobe. The alveolar septa (Figure 4) were wide and made up of sparsely to moderately cellular fibrous connective tissue (Figure 5). The lining cells of the alveoli were mostly cuboidal in type and the alveoli appeared to be decreased in number. Alveolar capillaries were scanty and while generally inflammatory cell infiltration was minimal, some

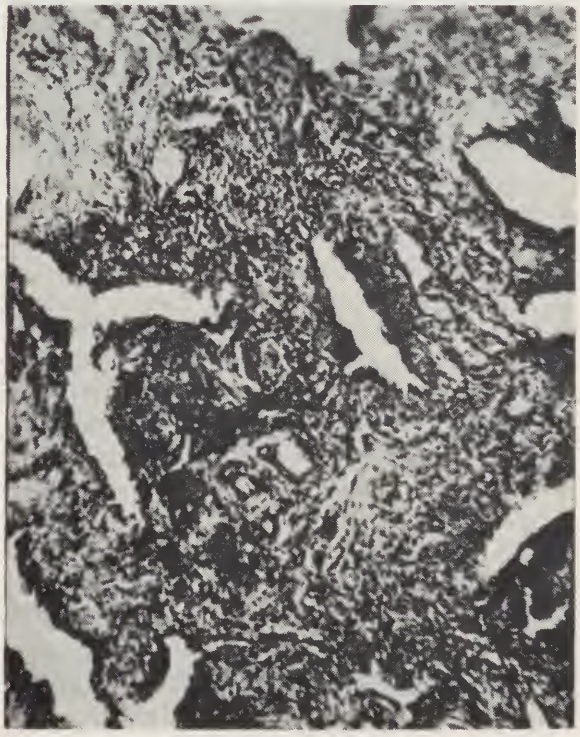


Figure 4. Thick interalveolar septa with fibrous tissue, lymphocytes, and histiocytes.

areas contained lymphocytes, plasma cells, eosinophiles, and fibroblastic cells. Macrophages containing hemosiderin pigment were noted in some

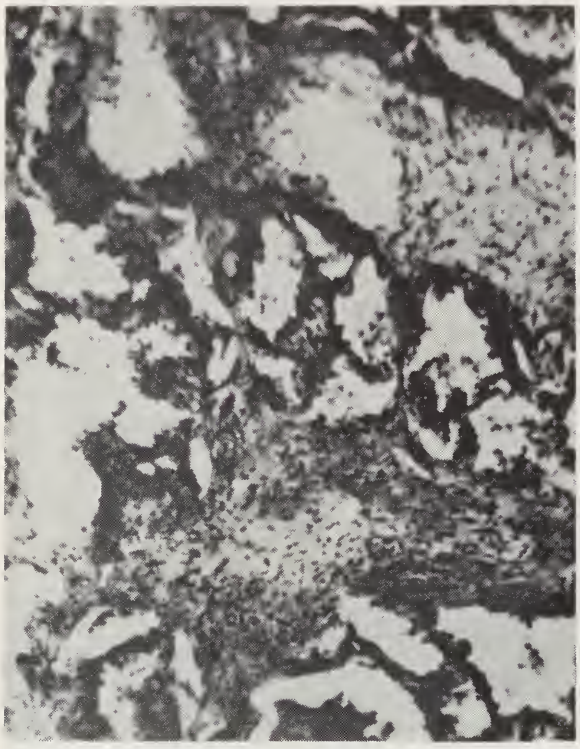


Figure 5. Interalveolar fibrosis and alveolar epithelial hyperplasia.

of the thickened fibrous septa and also in the lumina of some alveoli. Several small islands of metaplastic epithelial cells were found in the areas showing more marked inflammatory reaction. Stains for acid fast bacteria and fungi were negative. Hilar lymph nodes showed moderate hyperplasia with carbon pigment and small areas of calcification. Sections of the myocardium showed small areas of fibrosis. The anatomical diagnoses were diffuse interstitial fibrosis of the lung (Hamman-Rich syndrome); dilatation of right ventricle (cor pulmonale); focal myocardial fibrosis; edema of the brain."

DISCUSSION

Dr. Shell: "In correlating the autopsy findings and the clinical picture, it seems apparent that this case represents a diffuse interstitial fibrosis of the so-called Hamman-Rich syndrome that presented in a peculiar manner in that initially there was a mass in the left lung mimicking a carcinoma. The subsequent clinical course, with a rapidly downhill course terminating in pulmonary insufficiency and pulmonary death, is also characteristic of the Hamman-Rich syndrome. The diffuse nature of this disorder with a characteristic pathological finding in both lungs and in areas remote to the x-ray therapy exonerates this as a cause of fibrosis. An interesting feature of this case is the disappearance of the initial mass following x-ray therapy."

Dr. Dominick: "I am at a loss to explain the disappearance of the density in the left upper lobe following the x-ray therapy, particularly after seeing the autopsy findings and the large amount of fibrosis present. In the absence of any findings suggesting malignancy, it is obvious that it was not present even though it was strongly suspected clinically and by x-ray findings."

Dr. Shell: "The therapy frequently advocated for this condition is massive doses of steroids, although in my experience the results have been disappointing. More complete pulmonary function studies, especially ventilatory functions, would have been of interest." ★★★

The Street Clinic—Mercy Hospital

PSYCHOPHILANTHROPY

Money giving is a very good criterion, in a way, of a person's mental health. Generous people are rarely mentally ill people.

—Karl Menninger, M.D.

Undivided and Unconquered

HOWARD A. NELSON, M.D.
Greenwood, Mississippi

It was Aesop in the fourth century B.C. who first observed, "United we stand, divided we fall." Machiavelli in the sixteenth century expressed the same maxim from a different point of view when he said, "Divide and rule." This irrefutable principle has been expressed in numerous ways by leaders in all centurys and holds true today as medicine and its allied interests face the threat of socialization. In this address, which was given before the Mississippi Association of Hospital Governing Boards, Dr. Nelson discusses the mutual concern of the medical profession and the hospital industry and the means by which they may work together toward their common goals.

THE MEDICAL PROFESSION and the hospital industry are enduring a critical experience. They have become the foci of a controversy which they neither begged nor deserve. As we pass through this critical period together, we are challenged to exert our utmost effort in mutual cooperation, intelligent evaluation, and courageous leadership.

We and the sick whom we serve are unwitting victims of a political power struggle and likely candidates for martyrdom in a cause already won. Physician and hospital are being cleverly challenged as big labor, big government, welfarism, and the liberal lunatic fringe are realizing success in posing a basic issue and a basic question. Both are serious and demanding. Moreover, our opposition has been successful in securing public validation of the question, if not in fact the issue.

Simply stated, the question is this: "Under what circumstances shall medical care be provided in the United States of America?" The issue is far more insidious: "What sort of economic system shall the United States have?" If the issue is resolved against the capitalistic-republican federal fabric—and there has been notable movement in that direction—then the question becomes ridiculously academic.

In 1950, it was the Wagner-Murray-Dingell bill, the complete blueprint and specifications for socialized medicine in the United States. At least one thing may be said for this proposal: It was thoroughly honest and its objectives were stated with the utmost clarity.

In 1957, it was the Forand bill—a little less demanding and a lot less honest. This measure, utilizing the Social Security tax mechanism, would have provided compulsory federal medical care for those age 65 to include hospital benefits and physicians' services. It fell flat on its face in the closing hours of the 86th Congress.

Now we have the King-Anderson proposal. Its resemblance to the original Wagner-Murray-Dingell measure is remote. Its benefits are modest and its demands are deceptively few. But the basic principle remains: compulsory federal health care supported through a compulsory federal tax structure. It is no exaggeration to state that the authors of this bill have said what they do not mean and they mean what they do not say.

If socialized medicine ever becomes a totally accomplished fact in this nation of ours, one of the circumstances making it so will be a cleavage and a division between physicians and hospitals. And our common enemy has enjoyed some successes in this direction.

1957-58 President of the Mississippi State Medical Association.

Read before the Sixth Annual Convention, Mississippi Association of Hospital Governing Boards, Biloxi, June 25, 1962.

In 1959, the American Hospital Association adopted a policy which disturbed and distressed physicians. On August 20, the AHA stated that it was "convinced that retired aged persons face a pressing problem in financing their hospital care." Now, we of medicine feel that this is a sweeping generality requiring documentation, qualification, and detailed analysis, but the policy went further.

It was stated that the American Hospital Association "believes federal legislation will be necessary to solve the problem satisfactorily. It has, however, serious misgiving with respect to the use of compulsory health insurance for financing."

Then the underwear was really thrown into the stew. The association said that "it is conceivable, however, that the use of Social Security to provide the mechanism to assist in the solution of the problem may be necessary ultimately." Then the policy was polished off with this benediction: "Any legislation developed to provide for government participation to meet the hospital needs of the retired aged should be so devised as to strengthen the voluntary prepayment system. . . ."

This oil and water didn't mix and it distressed your friends, the physicians.

AHA 1962 POLICY

In January 1962, the American Hospital Association said formally that some form and amount of federal funds were necessary to insure proper care for the aged, that Blue Cross should administer this program, and that the association was, therefore, not disposed to concede the necessity of the King-Anderson approach as such at the time of the formal utterance.

The Mississippi State Medical Association has applauded the position of the Mississippi Hospital Association and our Blue Cross-Blue Shield plan in opposing this policy. We know that you know that there is a price to be paid for federal money in federal programs just as surely as there is a price to be paid for goods and services in a free economy. The difference, however, is substantial and in the case of federal programs, the doctrine of *caveat emptor* should be the uppermost consideration.

But the policy was adopted and it is difficult for us to understand why this utterance was ever made in view of the encouraging gains being realized in the voluntary prepayment and private insurance fields. The 1961 score of all age groups is enormously impressive: 132 million have hospital plans; 123 million, surgical; 88 million, medical; 27 million, major medical; and 42 million, assured income during illness.

A CRY FOR FEDERAL HELP?

Does this state of affairs cry out for federal subsidy? For those who really need help, there is the sound, locally controlled concept of the Kerr-Mills program. Given a chance to work, it will negate all arguments for compulsory federal medical care, whatever the persuasion of the proponent. We believe that private philanthropy in its many forms, including that of physicians, is not to be discounted nor are the nonfederal programs of care for the indigent found at municipal, county, and state levels.

Nearly every one of us seems to forget that there are other means, apart from out-of-pocket payment, for financing health care and none of these relates to federal funding. Personal accident policies protect more than 6 million Americans and another 20 million have so-called dread disease coverage. Accidental death and dismemberment contracts offer financial assurances to 21 million while 130 million Americans have incorporated some form of financial benefit during illness and disability in their respective life insurance programs. Countless millions are indirectly, but nonetheless positively, protected against stated disease and injury conditions by liability and Workmen's Compensation insurance.

And top all this off by remembering that as much as $100 per week may be excluded from federal income tax during illness.

Since Blue Cross is the largest single program in this vast scheme of voluntarism, leaders of the American Hospital Association could hardly have concluded that they are selling a service in a declining market. Second, they surely recognize the increasing ability and willingness of Americans to provide for themselves in health maintenance. Finally, it seems that they should appreciate the fundamental political facts of life.

To conclude that a need exists for direct federal subsidy for any age group's health care is to buy the King-Anderson principle with a sugar frosting. The proponents of compulsory federal health programs appear to have little regard for the means by which their goals are achieved, and they have less regard for those unwitting dupes who help them achieve such ends.

There will always be a King-Anderson or a Forand bill pending before the Congress. No matter what is enacted or adopted or decreed by executive order, it will never be enough for the proponents. We should recognize and understand

that it's no longer a question of how the bill shall be paid, it's only a question of who will do the paying. This is the basic difference, the essential division, and the final choice between federalism and voluntarism.

The King-Anderson bill proclaims erroneously that it offers only hospital benefits to those who would receive its largess. Its vociferous supporters cry out that there is no reason for physicians to be concerned at all. They are clever, these people, because they have identified the Achilles' heel of the hospital industry. You are hard-pressed for sufficient funds with which to operate your peculiarly unique service institutions.

Our adversaries have astutely perceived that if they can't divide us philosophically, they will divide us economically. We shall not permit this to happen and the experience in Mississippi proves conclusively that it need not happen.

Each of us has a substantial task to perform. In our respective national organizations, we must make our voices heard and heard effectively. There must be an extension of associations of hospital governing boards where the business, professional, and industrial leadership of the thousands of American hospital communities can bring to bear the full weight of its persuasive influence. Within our respective communities, there must be new and imaginative rapport among hospital trustees, hospital management, and physicians. At state and national levels, we must discover new and useful relationships between medical and hospital associations. Each of us must strive in mutual concert to persuade men of understanding and breadth of intelligence to seek and obtain public office in the legislative and executive branches of government.

On occasion, we must subordinate our own personal desires to realize the greater goal of mutual service to the sick and injured. These are not easy tasks and the road to our ultimate goal is strewn with anything but rose petals. We can and will travel this road speedily and safely. We will travel it in a climate of mutual confidence because we both have the same destination. ★★★

308 Fulton Street

PLANNED PARENTHOOD

Blue Notes, monthly publication put out by the Mississippi Blue Cross-Blue Shield Plan, reports that a claim submitted without the date was returned for additional information. On the form letter sent to the subscriber, the Blue Cross clerk checked "give date accident occurred." The subscriber promptly supplied the requested information but added this comment: "This was *no accident.*" The claim was for maternity benefits.

CLINICAL NOTES:

Exsanguinating Chest Wound Following Shallow Dive

A. K. MARTINOLICH, JR., M.D., and KEITH HAMMOND, M.D.

Bay Saint Louis, Mississippi

A husky, healthy, 14-year-old boy, attending a summer camp on the Gulf Coast, was in a boat with some of his friends a thousand feet from shore. In spite of this distance the water was only about 3½ feet deep. This boy threw a small anchor overboard and shallow dived into the water after it. After a moment he came to the surface screaming. Blood was gushing from him, and he was pulled into the boat by his friends. This flow of blood continued from a wound in the front of his chest. Although he was quickly taken to shore and taken by ambulance to the emergency room of Hancock County General Hospital, it is doubtful that he was actually alive for more than a few moments after being taken into the boat. The amount of blood lost was great.

Upon arrival at the emergency room he was pronounced dead. A wound about 20 mm. wide, its breadth parallel to the ribs, was noted in the fourth interspace just medial to the left midclavicular line. Several observers noted no other marks at that time. However, after the embalming process, several superficial scratch marks, one-half to three-fourths inch apart, were discernible on the left forearm and the anterior chest wall. There were four such marks on the forearm just above the wrist along the ulnar aspect. On the chest wall there were four parallel marks just below the wound, extending downward a short distance.

Autopsy, performed by Dr. Kenneth C. Coffelt of Biloxi, revealed a clean stab wound, entering the chest at the fourth interspace about four inches to the left of the midline. It extended through the pericardium anteriorly, pierced the anterior and posterior walls of the left ventricle, went the posterior surface of the pericardium, and barely pricked the left lung beyond this, so that the entire wound was about five inches deep. The wound was tapering, becoming more narrow as it penetrated deeper. The pericardial sac and left pleural cavity contained large quantities of blood. There were no other significant findings.

Immediately after the accident the area was searched meticulously for a tool, fragment, instrument—anything which might possibly have inflicted the wound. Nothing could be found. The anchor could not conceivably have produced it. It was ascertained that the entire area had been cleaned of debris by scuba divers before the opening of camp two or three weeks prior to the accident.

The cause of death was given as exsanguination secondary to a penetrating wound of the chest apparently inflicted by a marine animal, possibly of the ray type. ★★★

641 Dunbar Avenue

A WOMAN'S WORLD

A West German experiment to test whether sexual frustration in males could cause high blood pressure and neurosis has come up with some interesting results. The researchers put male apes in cages where they could see female apes in other cages, and even touch them, but that's all. Three months after the experiment started, all the male apes had high blood pressure and some were showing signs of neurosis. The females? No discernible effect.

Insider's Newsletter

MEETINGS

NATIONAL AND REGIONAL

American Medical Association, Clinical Meeting, Nov. 25-28, 1962, Los Angeles, Calif. F. J. L. Blasingame, Executive Vice President, 535 N. Dearborn St., Chicago 10, Ill.

American Academy of General Practice, April 1-4, 1963, Chicago, Ill. Mr. Mac F. Cahal, Executive Director, Volker Blvd., at Brookside, Kansas City 12, Mo.

American College of Surgeons, Clinical Congress, Oct. 15-19, 1962, Atlantic City. William E. Adams, 40 E. Erie St., Chicago 11, Secretary.

Southern Medical Association, Nov. 12-15, 1962, Miami Beach, Fla. Mr. Robert F. Butts, Executive Director, 2601 Highland Ave., Birmingham 5, Ala.

STATE AND LOCAL

Mississippi State Medical Association, May 13-16, 1963, Biloxi. Mr. Rowland B. Kennedy, Executive Secretary, 735 Riverside Drive, Jackson.

Mississippi Chapter, American College of Surgeons, Nov. 16, 1962, Heidelberg Hotel, Jackson. Edward C. Hamilton, 14th St. and 25th Ave., Gulfport, Secretary.

Amite-Wilkinson Counties Medical Society, First Tuesday March, June, September, December. S. E. Field, Centreville, Secretary.

Central Medical Society, First Tuesday Monthly, 6:30 p.m., Robert E. Lee Hotel, Jackson. George E. Gillespie, 514-A East Woodrow Wilson Drive, Jackson, Secretary.

Claiborne County Medical Society. D. M. Segrest, Port Gibson, Secretary.

Clarksdale and Six Counties Medical Society, Second Wednesday March and November, 2:00 p.m., Clarksdale. Whitman B. Johnson, Jr., 645 Evelyn Ave., Clarksdale, Secretary.

Coast Counties Medical Society, First Wednesday March, June, September, and November. Charles N. Floyd, 1412-23rd Ave., Gulfport, Secretary.

Delta Medical Society, Second Wednesday April and October. Howard A. Nelson, 308 Fulton St., Greenwood, Secretary.

DeSoto County Medical Society, Second Thursday January, April, July, and October, 1:00 p.m., Hernando Motel Cafe, Hernando. L. L. Minor, Route 9, Memphis 9, Tenn., Secretary.

East Mississippi Medical Society, First Tuesday February, April, June, August, October, and December. Hugh S. Rayner, Jr., 1216-21st Ave., Meridian, Secretary.

Homochitto Valley Medical Society, Fourth Tuesday Monthly, 7:30 p.m., Natchez Country Club, Natchez. W. T. Colbert, Natchez General Hospital, Natchez, Secretary.

North Central District Medical Society, Second Wednesday March and September. Robert B. Townes, Jr., 1196 Mound St., Grenada, Secretary.

Northeast Mississippi Medical Society, Second Tuesday March, June, September, and December, Tupelo. Thomas W. Wesson, 421 Main St., Tupelo, Secretary.

North Mississippi Medical Society, First Thursday January, April, and October, Oxford. Marcus E. Morrison, 512 Van Buren Ave., Oxford, Secretary.

Pearl River County Medical Society, Second Monday March, June, September, and December. Samuel O. Massey, Jr., 220 E. Canal St., Picayune, Secretary.

South Mississippi Medical Society, Second Thursday March, June, September, and December. Thomas F. Puckett, 715 Arledge St., Hattiesburg, Secretary.

Tri-County Medical Society, Second Tuesday March, June, September, and December. A. V. Beacham, Magnolia, Secretary.

West Mississippi Medical Society, Second Tuesday January, April, July, and October, 7:00 p.m., Old Southern Tea Room, Vicksburg. Tom H. Mitchell, The Street Clinic, Vicksburg, Secretary.



The President Speaking

'White Knight or Black Eye?'

C. P. CRENSHAW, M.D.
Collins, Mississippi

CRITICS OF THE DRUG INDUSTRY have been numerous and loud. They would have us believe that the typical manufacturer of ethical pharmaceuticals is a latter day Mark Hanna, sporting a dollar mark vest and big cigar, with a cash register in one hand and a bottle of dubious elixir in the other. According to some Washington sources, he makes a usurious profit on the untested, lethal preparations which he is foisting off on a helpless, unsuspecting public. Astonishingly enough, this isn't quite the case.

Final operational figures for 1961 have just been released by 141 member companies of the Pharmaceutical Manufacturers Association who make 95 per cent of the nation's prescription drugs. These coldly objective facts and sums, taken mostly from still colder tax returns, shed quite a different light upon this industry, illuminating its dark and modest side. Both the profession and the public ought to know more about this lesser heralded view.

In 1961, the ethical drug industry spent a record $245.3 million in private funds on research and development, a whopping 8 per cent of sales. This investment in the goal of working itself out of a job amounted to a 13 per cent increase over 1960 and a 500 per cent increase over 1951. The industry employed 13,500 research scientists and technicians, easily leading all other industries in the ration of scientists to other employees. In total sales of nearly $3 billion, the drug makers did more than their part in stemming the outward flow of gold by selling just under $650 million in foreign trade, an interesting cross-commentary on allegations that you can buy pills cheaper overseas.

The 141 member companies paid $360 million in taxes of which three-fourths was federal income levies. Their profits were not substantially greater than any other aggressively managed business as demonstrated by statements of operation and dividends paid to shareholders. Apart from all this, their contributions to better medical care were enormous.

Isn't it about time the drug industry was recognized for its role in uplifting the nation's physical and economic health instead of being portrayed as private enterprise's black eye? ★★★

JOURNAL OF THE
MISSISSIPPI STATE
MEDICAL ASSOCIATION

Volume III, Number 10

October 1962

EDITORIALS

Stand Up and Be Counted!

EACH DAY WE ARE CONFRONTED by clamors of the danger of communism, more by clamors of the danger of socialism, and the dangers to the free enterprise system that we have known and enjoyed so long. We become complacent and assume if the danger were really that great that our elected leaders would at least see the light before it is too late.

Able men are leading these fights for our freedom. Many have given up lucrative careers to devote full time to the furtherance of the cause for freedom, but they alone are impotent to accomplish a great deal largely by the paucity of their numbers. Their shouts might be likened to voices in the wilderness. Every intelligent person surely realizes that the preponderance of voices heard by Congress are the voices of pressure groups and those with selfish interests.

We all realize that we have the most liberal Supreme Court in the history of our nation. Chief Justice Earl Warren stated in the decision on Black Monday, in essence, that the Constitution must be interpreted in the light of these modern times. How then the strict interpretation in the decision of the court relative to the school prayers in Hyde Park, N. Y. Does not the Constitution protect the remainder of the pupils in religious freedom.

No one can deny that we have the most liberal executive branch of government in our history. Close home to us as doctors, of course, was the unprecedented active campaigning of a president for legislation—namely, compulsory federal medical care for the aged under Social Security.

This leaves us only the legislative branch for any hope of a constructive change toward freedom for the individual. Many of our legislators are so engrossed in playing along with the party and insuring its preservation in power that they hardly stop to think of the good of the country—in a word, too many politicians and too few statesmen. Your Editor is proud of our Mississippi representation, and it was heartening to note that a recent election in our state voiced the trend toward conservatism.

What then can we as individuals do to promote sound government based on the principles that our forefathers advocated and fought for? First, we must be willing to contribute something in effort, time, or money. Few doctors were slackers in any war of their country. All of these were willing to die for their country. What a great thing it would be if we would live for it with any of the zeal so often seen in times of national emergencies.

Who questions that the more "hand-outs" we accept the weaker we become. When all of our basic material needs are met by federal government, who doubts that the recipients are greatly softened by it. When man is deprived by his government of his bounty and material security attained by the sweat of his brow and his ingenuity, who questions that this is demoralizing to the very group on whose efforts the actual progress of the country depends.

We are surrounded by defeatists who say what can we few do when the mighty forces of big government are against us. This attitude certainly did not make our country great.

Everyday we can make some effort, however small, to familiarize ourselves with the problems involved. We can contribute of ourselves and our resources for constructive causes no matter how small. We can all "stand up and be counted."

Despite the unfavorable publicity that the medical profession is "enjoying" today, as individuals we are respected in our communities. Let's take advantage of this and make some effort toward sound government today.—W.M.D.

Senator Eastland: Leader and Statesman

The exercise of statesmanship is not always an easy task. In the Congress, substantial demands are placed upon legislative skills and qualities of personal leadership in coalescing widely divergent views and objectives into useful laws. Senator James O. Eastland, chairman of the Senate Committee on the Judiciary, is such a leader, amply endowed with these desirable qualities.

When S.1552, which was recently passed by the Senate as the Drug Industry Act of 1962, was first introduced, the measure was caught up in a furor of charges and countercharges. Feeling ran high on the part of proponents and opponents. To be sure, certain provisions of the initial measure were opposed by the medical profession and the pharmaceutical manufacturing industry. Among these were reduction of patent tenures from seventeen to three years, and the professionally opposed matter of prescribing by generic designation.

Senator Eastland guided the measure at subcommittee and committee levels. He conferred long and patiently with those able to contribute to the deliberations of his committee. The results in this instance speak for themselves: The bill is in the public interest. Wisely, the patent law patterns have been left intact, thus preserving the pharmaceutical manufacturer's incentive to undertake expensive research. Basically, the bill can strengthen an already good system.

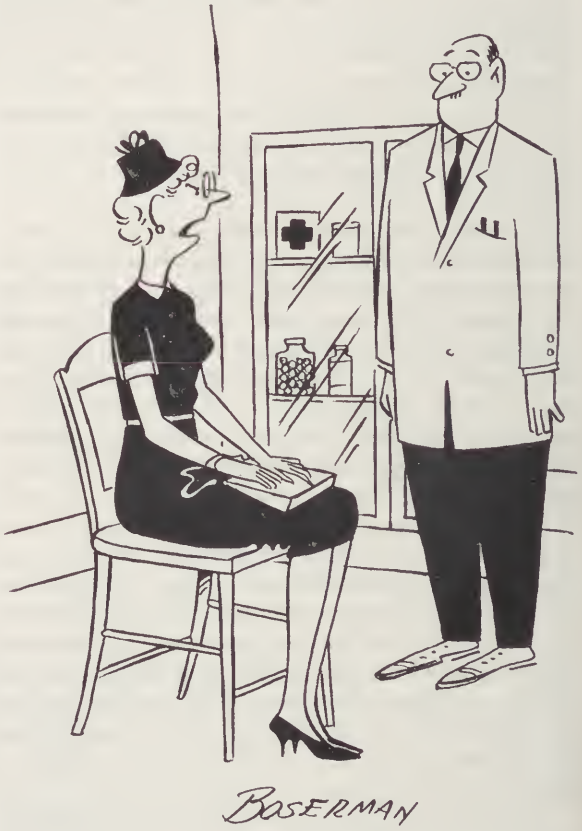
Mississippi physicians recognize and appreciate Senator Eastland's leadership and his vital role in this particular chain of events. Moreover, they view his distinguished career in the wider perspective of nearly two decades of service in the nation's highest deliberative body. The exercise of statesmanship is not always an easy task but Senator Eastland places the public interest above political convenience.—William E. Lotterhos, M.D.

Nurses and IV Fluids: Solution to a Dilemna?

Four health service organizations in California are facing up to the knotty legal problem posed over the matter of nurses' administering fluids intravenously to patients. The California Medical, Hospital, and Nurses Associations and the state League for Nursing recognized that because of the law and its interpretations, discussion of the nurse and IV fluids has been inconclusive as to legality. They recognized also the fact of life that nurses, indeed, are administering fluids by this technic.

Guided by legal counsel, the four groups have jointly acknowledged and accepted the concept of the legal right of nurses to perform this procedure when:

—She has competent training in the technic and performs the procedure under the direct supervision of a physician,



Copyright 1962, Mississippi State Medical Association

"It's too embarrassing to talk about, and I'm certainly not going to show you!"

—The hospital has a formal committee to supervise and oversee such practices, and

—The prerogatives of designating nurses, training criteria, and the fluids which may be so administered, all under medical direction, are reserved to the committee.

Where state law is such as to pose this dilemma, the California policy is well worth watching.—R.B.K.

The Leisure Syndrome

The president of the British Medical Association believes that progressively lowering moral standards are eroding away many scientific advances in medicine. Addressing a recent professional convocation at Belfast, Ireland, Mr. Ian Fraser, a noted surgeon and BMA president, said that alcohol, bad manners, selfishness, and carelessness are really human diseases. Unlike other disorders, he added, these are avoidable.

"A change in the mode of life that is causing great and genuine alarm is the deterioration in morals, manners, and ethics," he said. "Changed manners and morals and the glamor of living dangerously with the exhibitionalism that it entails have again raised the venereal disease rate and are filling our newspapers with reports of gangster attacks and murders."

Mr. Fraser called society "leisure-stricken," observing acidly that the United States was apparently headed for the 20-hour work week. But he also suggested a remedy: hard work and constructive recreation and cultural pursuits. Inferring that people need new direction toward the moral life, he said that "you can always supply the toys but you cannot supply the play."

Mankind is by no means ready for a write-off as a social and biological failure but Mr. Fraser's note of caution makes good sense.—R.B.K.

PERSONALS

CURTIS W. CAINE, Jackson anesthesiologist, was named a director of the Flying Physicians Association at the organization's August meeting.

HILTON MCKAY FAIRCHILD has assumed his duties as director of public health services for Grenada, Tallahatchie and Yalobusha Counties. Dr. Fairchild is a 1961 graduate of the University of Mississippi School of Medicine. He completed his internship at the University Hospital.

J. R. HILL of Corinth celebrated his 90th birthday on Aug. 10. Dr. Hill, who served as MSMA president during the term 1935-36, is the father of STANLEY A. HILL, MSMA president during 1959-60.

BOBBY JACK HOUSTON has joined the McFarland Clinic in Bay St. Louis.

SAM MCMANUS has opened his practice in association with the Gloster Clinic in Gloster. A native of Gulfport, Dr. McManus was graduated from the University of Mississippi School of Medicine and interned at Lloyd Noland Hospital, Fairfield, Ala. He recently completed a two-year tour of duty with the U. S. Army during which he was stationed at Fort Benning, Ga.

WILLARD H. PARSONS of Vicksburg returned home in August from a month-long inspection and lecture tour of the military hospitals in the Far East. Dr. Parsons was commissioned as civilian consultant to the surgeon general of the Army for the Far East assignment. In an interview with the Vicksburg *Evening Post,* Dr. Parsons said that families of United States soldiers stationed in the Far East can be assured their servicemen are getting excellent medical care. Their morale is good and their general deportment "can make every American proud," he reported.

WILLIAM C. WELCH, JR., has begun his duties as director of public health services for Oktibbeha, Clay and Choctaw Counties. A native of Tupelo, Dr. Welch is a graduate of the University of Mississippi School of Medicine and completed his internship at the University Hospital.

GEORGE MYRON WILSON has opened his office in Gulfport for the practice of psychiatry. Dr. Wilson is a graduate of the University of Tennessee College of Medicine. He interned at Charity Hospital in New Orleans and completed his residency in psychiatry at the University of Louisville, Department of Psychiatry.

Asian Flu Outbreak Predicted For 1962-63 Winter Season

Widespread outbreaks of influenza A_2 (Asian) may be expected during the 1962-63 winter season, according to a report of the Surgeon General's Advisory Committee on Influenza.

The committee pointed out that accurate forecasting is difficult, but recent and past patterns justify their predictions. The committee emphasized that persons with debilitating disease, persons over 45, and pregnant women face the highest mortality and should be immunized against influenza.

INFLUENZA / Continued

The last epidemic of influenza A_2 swept over the country in 1960 and 26,700 excess deaths occurred. In the epidemics of 1957 and 1958, influenza A_2 was responsible for 39,300 and 20,000 excess deaths respectively.

Although widespread outbreaks of influenza type B were observed throughout the United States in 1962, with high morbidity rates among children, the number of excess deaths was, as in previous influenza B epidemics, relatively small.

The extensive occurrence of influenza B during 1962 makes it unlikely that any significant recurrence of this type will occur during the 1962-63 season.

Analysis of the mortality associated with the influenza A_2 epidemics demonstrates that individuals over 45 years, particularly those over 65 years, are at greatest risk. About a third of the excess deaths that occur are attributed on death certificates to pneumonia and influenza, but fully two-thirds of the deaths are recorded as due to a variety of chronic conditions. Predominant among these are the cardiovascular renal diseases. Other chronic illnesses clearly demonstrating a significant excess number of deaths during the epidemic period include rheumatic heart disease, chronic bronchopulmonary disease, and diabetes.

Immunization is particularly emphasized for persons of all ages suffering from chronic debilitating diseases, persons in older age groups, those over 45 and particularly those over 65, and pregnant women. Although the influenza virus may not be more likely to infect persons in these specified groups, the occurrence of influenza in these persons is more likely to be a life-threatening event.

Major nationwide epidemics of influenza have long been recognized as occurring in cyclical fashion. The A strains commonly follow a two to three year pattern, the B strains, a four to six year cycle.

State Morbidity Reported Through August 31

The Mississippi State Board of Health reports the following occurrence of morbidity for 1962 through the 35th week of the year, ending August 31, 1962. Case totals reported are shown opposite the disease condition.

Tuberculosis, pul.	433
Tuberculosis, O.F.	28
Anthrax	1
Typhoid fever	4
Salmonella infections	18
Brucellosis	1
Dysentery	
Amebic	31
Bacillary	35
Dysentery, NOS	1
Food poisoning, NOS	3
Septicemia, Strep.	4
Septicemia, Staph.	47
Leptospirosis	2
Toxoplasmosis	1
Staphylococcus infection	7
Poliomyelitis	3
Diphtheria	6
Meningococcus infection	
Meningitis	12
Meningococcemia	3
Meningitis, O.F.	46
Other complications of smallpox vaccination	3
Tularemia	2
Tetanus	10
Encephalitis, infectious	18
Mononucleosis, infectious	54
Diarrhea of newborn	6
Hepatitis, infectious	625
Hepatitis, serum	1
Helminthic infections	
Hookworm	760
Ascariasis	281
Strongyloides	39
Moniliasis	1
Actinomycosis	1
Other cestode infest. (HN)	2
Histoplasmosis	16
Other fungus infections	1
Streptococcus infections	
Scarlet fever	180
Strep throat	2,502
Malaria	1
Rheumatic heart	3
Rheumatic fever	2
Puerperal sepsis	1
Pertussis	58
Measles	2,724
Chickenpox	738
Mumps	345
Influenza	11,248
Gonorrhea	3,578
Syphilis	
Early	135
Late	233

Book Reviews

Postpartum Psychiatric Problems. By James Alexander Hamilton, M.D., Associate Clinical Professor of Psychiatry, Stanford University School of Medicine, Stanford, Calif. Clothbound, 156 pages including index. St. Louis: C. V. Mosby Company, 1962. $6.85.

Psychiatric illness developing after childbirth presents a distressing situation for patient, family, and the attending physician. It sometimes develops into a catastrophic occurrence having a profound influence on the future life adjustment of the patient. Dr. Hamilton has performed an excellent service in bringing together widely scattered information bearing on the diagnosis and treatment of postpartum psychiatric problems. He seeks to create an awareness of the various syndromes so that they can be recognized immediately and treated aggressively by all appropriate measures.

Dr. Hamilton presents a stimulating theoretical perspective concerning the etiology of postpartum mental illness. He takes issue with the opinion that childbirth acts only as a trigger to activate a latent illness. Evidence is presented to advance the thesis that physiological changes subsequent to childbirth are highly important in the causation and course of such an illness. Psychological factors are considered important but the author maintains that emphasis on longitudinal life history studies of thinking and behavior has resulted in a relative neglect of the special psychodynamic processes incidental to the stress of childbirth. Accordingly, he elects to focus on these special factors and to relate them to the patterns of thinking which occur during acute postpartum illness. These observations are further elaborated into practical psychotherapeutic principles.

A description of the outstanding clinical features of postpartum mental illness is presented along with more detailed consideration of the special psychiatric syndromes which appear in the puerperium, with an outline of treatment appropriate to each syndrome. The topic of psychotherapeutic principles is discussed separately. Consideration is also given to the transitory emotional or psychiatric problems which appear after childbirth and to the relationship of these problems to major psychiatric illness. General suggestions are given for the management of early or minor symptoms and for the prevention of major psychiatric reactions. The relevant physiology of the puerperium is discussed and chapters are included dealing with the history of the study of postpartum psychiatric problems and with clues for future research in this area.

This book should prove extremely helpful to those physicians that are faced with the early problems of decision, diagnosis, and treatment of postpartum psychiatric disorders. These problems merge into and are inseparable from those which are faced by the psychiatrist who may be responsible for treatment of the more advanced syndromes of postpartum mental illness.

WILLIAM C. MCQUINN, M.D.

General Pathology: Based on lectures delivered at the Sir William Dunn School of Pathology, University of Oxford. Edited by Sir Howard Florey, Professor of Pathology. Third edition. 1104 pages. Philadelphia: W. B. Saunders Company, 1962. $22.00.

Like the previous two editions of this book, this edition was written by a group of outstanding pathologists, mostly British. The 17 collaborators have a special interest in their respective topics, having done much experimental research in these subjects.

The object of the first edition has been carried over to the present volume, namely, to consider the fundamental changes that take place in the body in response to injury, and the nature and causes of such changes. There is stress on the experimental approach to the subject. Strong emphasis is also placed on biochemistry and physiology as they relate to pathology.

Approximately the first half of the book is devoted to a clear presentation of basic pathological changes such as inflammation, thrombosis, hemorrhage and shock, fever, edema, necrosis, atherosclerosis, healing, the general nature of tumors, and radiation effects.

In the remainder of the book there follows an excellent description of the modes of action of micro-organisms in invading the host and in producing disease. Then immunity and allergic disorders are considered, including a new chapter on the immunology of tissue transplantation. A chapter on antibacterial substances concludes the volume.

Illustrations throughout the book are well-chosen and clear.

This book is of value to those who want to learn the fundamentals of general pathology and those who wish to refresh and modernize their knowledge of basic pathology.

EUGENE MORRISON, M.D.

Domestic Journals

Role of Cardiovascular Insufficiency in Intellectual Deterioration in Senium. Helena E. Riggs and Krishna M. Wahal: Geriatrics 17:26-30 (Jan.) 1962.

Intellectual deterioration in elderly patients often develops insidiously without overt psychosis or focal neurologic deficit, but when discovered it nonetheless distresses the family, the friends, and the patient himself. Difficulty in recall usually develops first, then memory lapses, emotional lability, then hyperirritability and depression, retardation of emotion and speech, tremors of head and hand and shuffling gait. This depressing chain of events immediately excites a fatalistic, hopeless attitude in layman and physician alike. The condition is officially classified as "chronic brain syndrome due to cerebral arteriosclerosis," and all concerned prepare for the worst. But the authors question the completeness and accuracy of such a diagnosis in many cases. They show that marked degenerative changes in cerebral vessels are commonly present at necropsy in patients just over their 40's, and that severe progressive mental defects exist only rarely, even in advanced cases.

In view of this and the dependence of brain tissue on blood supply, and in view of the selective effects of anoxia on psychic function, the authors postulate that intellectual enfeeblement may develop from a critical restriction of blood flow whether it be from cardiovascular insufficiency, narrowing of sclerotic vessels, or from other causes. They assert that intellectual enfeeblement in the aged may well result more from cardiovascular deficit than from occlusive disease of brain vessels, though the condition can and do coexist. They call attention to the work of several investigators showing that:

1. Cerebral infarction often develops during the course of acute coronary insufficiency, and transient hemiplegias develop often during cardiac decompensation.

2. There is a high incidence of cardiac insufficiency in patients dying of acute cerebrovascular accidents.

3. A faulty systemic circulation influences the development of focal lesions of the nervous system.

4. Cardiac insufficiency undoubtedly does contribute to cellular damage in the nervous system, even widespread parenchymal degeneration.

The writers seem to suggest that intellectual deterioration in geriatric cases may be postponed or even eliminated if attending physicians abandon the common nihilistic attitude that regards mental enfeeblement as unpreventable and as irreversible in the aged, and if a more dynamic approach is developed toward prevention and amelioration of such enfeeblement by early maintenance of cardiovascular efficiency.

ROLAND E. TOMS, M.D.

Saunders Announces Recent Publications

W. B. Saunders Company features the following recent books in their full page advertisement appearing elsewhere in this issue:

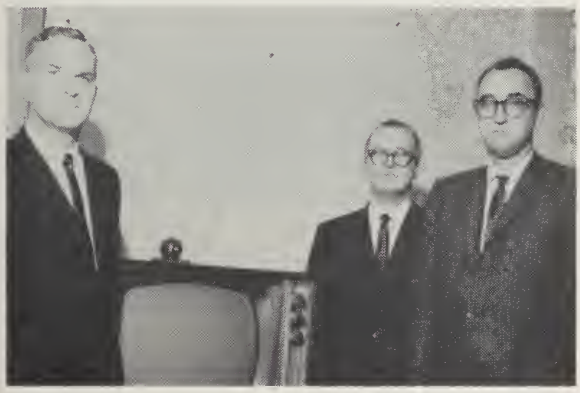
PARSONS and SOMMERS—GYNECOLOGY
A useful new guide to management of gynecologic disease—parallels the growth and aging patterns of women covering the disorders accompanying each stage of the life cycle.

DAVIDSOHN and WELLS—Todd-Sanford CLINICAL DIAGNOSIS by LABORATORY METHODS
Explicit guidance on how to perform every possible clinical test—what to do, when and how to do it, and how to interpret your results.

WOLFF—ELECTROCARDIOGRAPHY
Help in understanding and evaluating electrocardiograms in terms of clinical medicine—without relying on memorization of examples.

Psychiatric Unit Offers Supporting Atmosphere To Patients, Clinical Experience to Students

In stark contrast to the rest of the building's stainless steel and starched white decor, the University Hospital's recently opened Psychiatric Unit sports vivid shades of turquoise, green, and orange.



Dr. Robert Q. Marston, left, director of the University of Mississippi School of Medicine, Dr. L. C. Hanes, second from right, Psychiatric Unit coordinator, and Dr. F. J. Moore, chairman, Department of Psychiatry, check over one of the television monitors installed as part of the Psychiatric Unit's closed circuit TV system. The unit, which began accepting patients in September, is an open door facility with security maintained partially through closed circuit TV.

Facilities in the unit, which occupies the remodeled east wing of the seventh floor and an added eighth floor on the east wing of the hospital, are designed to furnish a supporting, homelike atmosphere for patients suffering from emotional and nervous disorders or threatened by mental illness.

In its two-person patient rooms complete with studio beds, desks, and draperies, the unit can hold 28 patients at a time. Since the facilities are planned primarily as a source of clinical material for teaching, selection of patients is made with their teaching suitability as the primary determinant. All patients must be at least 12 years of age and must have psychiatric disorders which can be expected to respond to short-term, intensive therapy. As all admissions are voluntary, persons who have been committed by the court cannot be accepted.

Patients admitted to the unit are expected to require approximately a month of treatment. Thus, the 28-bed unit can care for around 336 persons a year. Admittedly, this is a small proportion of the mentally disturbed in Mississippi, but as Dr. F. J. Moore, chairman of UMC's Department of Psychiatry, and Dr. L. C. Hanes, psychiatric unit coordinator, point out, the unit is primarily a teaching tool. The doctors, nurses, and all the members of the psychiatric team trained in this controlled healing climate will one day go out into the state to care for persons with emotional and mental disorders.

"Experience elsewhere proves that when there is enough skilled personnel who know how to recognize and treat psychiatric problems early," says Dr. Moore, "many patients can be cured without having to go through long, costly, heartbreaking years of confinement. Completion of the unit will enable the University of Mississippi School of Medicine to provide such trained men and women for the state," he adds.

Dr. Robert Q. Marston, director of the School of Medicine, predicts, "This one, small, model unit will markedly help reduce the amount of serious mental illness in Mississippi."

The first of its kind in the state, the unit cost $370,000 of which $110,000 came from a 1960 state bond issue. All patients pay for their care, although the rate is individually determined. For an estimated four-week hospital stay, the total charge, including hospitalization, professional care, and psychologic testing, is about $1,070. Some patients may be accepted at a lower rate but in any case the minimum total charge is about $390 for a four-week period. Prepayment for the first two weeks is required.

Patients are admitted only on referral of physicians and it is anticipated that they will be referred back to their local physicians when they are

discharged. Patients are admitted to the unit rather than to an individual physician. Physicians who wish to refer patients may write or call the Psychiatric Diagnostic and Treatment Unit, University Hospital, Jackson, telephone 366-2681, extension 451, and the necessary preadmission evaluative interviews will be scheduled.

In the unit patients have a kind of practice living in a carefully controlled environment. Living quarters on the seventh floor include patient rooms, a laundry room complete with washer and dryer, and a roomy visitors' lounge. There are no locks, no guards, no barred windows, and no uniforms. Patients wear street clothes. Security is maintained by intercom contact between nurse and patient, tempered glass, and closed circuit television camera and monitors. Two rooms for acute episodes are locked and constantly monitored by closed circuit TV.

Upstairs on the eighth floor are a lounge, occupational therapy facilities, dining room, offices, library, television studio, group therapy room, and a small auditorium. A video tape recorder turns out taped telecasts only seconds after they are filmed and recorded. Cases may be recorded on video tape to provide a library for teaching purposes.

According to Dr. Hanes, the activity rooms such as the dining room, the occupational therapy room, and the recreational lounge are planned so that at a later date day patients as well as hospitalized patients can be accommodated.

Central Society Welcomes Returning Medical Officers

Medical officers called up with Jackson National Guard units during the Berlin crisis last October were welcomed home by Central Medical Society at its Sept. 4 meeting.

The officers were guests of the society for a fellowship hour and for the following dinner and regular monthly meeting. In his opening remarks, Dr. C. G. Sutherland, Central Society president, thanked the Guard members for their willingness to serve on active duty.

Col. David B. Wilson of Jackson, commander of the 134th Mississippi Surgical Hospital Unit, introduced these officers: Lt. Col. Carroll L. Busby of Whitfield; Capt. William M. Flowers of Jackson; Capt. McWillie M. Robinson of Jackson; Maj. Clinton E. Wallace of Jackson; Lt. Col. Thomas K. Williams, Jr., of Jackson, and Capt. Carl G. Evers of Jackson.

Five officers who were unable to attend were also recognized by Col. Wilson. They were Capt. Wayne P. Cockrell of Magee; Capt. Charles H. Martin of Whitfield; Capt. Daniel E. Merck of Jackson; Capt. W. H. Merrill of Jackson, and Capt. Robert P. Myers of Jackson.

During the scientific session, Dr. L. W. Fabian, professor and chairman, Department of Anesthesiology, University of Mississippi School of Medicine, discussed "Anesthesia for Diabetic Patients."



Medical officers honored by Central Society at its Sept. 4 meeting are shown with society officers. Seated from left to right are Col. David B. Wilson, commander of the 134th Mississippi Surgical Hospital Unit; Dr. C. G. Sutherland, Central president; Dr. W. L. Jaquith, president-elect, and Dr. George E. Gillespie, secretary. Standing are Maj. Clinton E. Wallace, Capt. Carl G. Evers, Lt. Col. Carroll L. Busby, Capt. William M. Flowers, Lt. Col. Thomas K. Williams, Jr., and Capt. McWillie M. Robinson.

The society also heard a report on the proposed Hinds County Hospital by Dr. Lawrence W. Long, chairman of the Medical Advisory Committee for the institution. Dr. Long said that the architect's plans have been approved and the majority of land secured for the hospital which is scheduled to open sometime in 1965.

University Sets Fourth Lecture In Social Science Series

The fourth lecture in the Social Science in Medicine series sponsored by the University of Mississippi School of Medicine is scheduled for Oct. 12. These lectures, which began in January 1962, have been planned to show the relevance of such fields as psychology, sociology, and anthropology to medicine.

Speaker for the October session will be Dr. O. Hobart Mowrer, research professor of psychology, University of Illinois, and past president

of the American Psychological Association. Dr. Mowrer will speak on mental health and religion.

Members of the general professional public, including physicians, psychologists, social workers, and persons in allied professions, are invited to attend the lecture which is set for 1 p.m. in Room 7-A of the School of Medicine. Senior medical students and members of the university staff will hear Dr. Mowrer on Thursday, Oct. 11, at 4 p.m. in Room 7-A.

In his recent book *The Crisis in Psychiatry and Religion,* Dr. Mowrer questions two of the leading persuasions used by those who help man deal with himself: Freudianism and Calvinism. Contemporary society is plagued with a growing incidence of emotional illness, contends Dr. Mowrer, because of a sick ethic. To be healthy again, he believes the pessimistic determinism of Freud and Calvin must be thrown off and the moral responsibility of man before his brother, God, and himself be reasserted. It is expected that this talk will contain many implications of the daily well-being of nonpsychiatric medical patients.

The Social Science in Medicine series will end in January 1963. The final lecturer will be announced at a later date.

Nominations Open For Second Robins Award

The second annual MSMA-Robins award for outstanding community service by a physician will be presented at the 95th Annual Session, Biloxi, May 13-16, 1963, according to a joint announcement by Drs. C. P. Crenshaw, president, and H. H. McClanahan, Jr., chairman of the Board of Trustees. The award was established last year in conjunction with the A. H. Robins Company, Richmond, Va., a long-established and respected manufacturer of ethical pharmaceuticals, the announcement stated.



Robins Award

Criteria for the award program were established in 1961 by the Board of Trustees, Dr. McClanahan said. Recipients, limited to one annually, must have been members of the association in good standing both at the time the outstanding community service was rendered and when the presentation is actually made. Nominees are designated by component medical societies, each having one nomination annually. From among a maximum of 16 possible nominees, a final selection will be made by a Board of Judges representing geographical regions of the state.

Official notice of the second annual award has been made to local societies, Dr. Crenshaw said. Nominees will be judged with respect to services which have benefitted the local or state communities in a civic, cultural, or general economic sense and should have been performed voluntarily. Service need not, however, be limited to a single achievement, the president added, since many outstanding citizens contribute to community betterment through a series of services. Purely professional achievement, such as contributions in scientific research and development of new surgical and medical technics, are excluded from consideration, since suitable awards in these connections already exist.

Winner of the first MSMA-Robins award, presented in 1962, was Dr. Thomas G. Ross of Jackson. Other nominees, who were lauded by the Board of Judges, were Drs. Frank M. Davis of Corinth, Sam E. Field of Centreville, Walter E. Johnston of Vicksburg, Howard A. Nelson of Greenwood, and William T. Wilkins of Clarksdale. Presentation was made to Dr. Ross at the annual association banquet on May 9, 1962, during the 94th Annual Session.

Dr. Long Named Secretary Of ICS Section

Dr. Lawrence W. Long of Jackson was named secretary of the general surgical section of the International College of Surgeons during the 1962 International Congress held Sept. 9-13 in New York.

A past president of MSMA, Dr. Long is ICS regent for Mississippi and vice president of the United States Section of the international medical group. Last May he addressed the Second Congress of the European Federation of ICS which convened in Amsterdam, the Netherlands.

Dr. Long presided over the newly organized general surgical section which met Sept. 10. Prior to the congress, he participated in examining candidates for fellowship.

The 1962 congress, which had its headquarters at the Waldorf-Astoria, was comprised of a general assembly and 12 surgical specialty groups. Attendance hit the 3,112 mark with representatives from 73 nations registering. Total ICS membership is 14,000 with members in 78 countries. The 1964 congress will be held in Vienna.

Blood Bank Association To Meet in Memphis

The annual meeting of the American Association of Blood Banks will be held Oct. 31-Nov. 3 in a southern city, Memphis, for the first time in a number of years, according to Dr. Kenneth M. Heard of Jackson, AABB director and representative to Mississippi for the national association.

"The geographic location of the meeting makes it possible for professional, administrative, and technical members of the AABB and guests who live in the South to attend this meeting with relative ease," said Dr. Heard.

He pointed out that the program is designed to be of considerable benefit to the technologists and blood bank administrative personnel as well as to the professional man. The AABB meet should be considered a vital part of a program of continuing education within the blood banking field, he said.

Dr. Heard is chairman of the Department of Pathology of the Mississippi Baptist Hospital and is currently serving as chairman of MSMA's Committee on Blood and Blood Banking.

Scientific Exhibits Invited For MSMA's 95th Session

Prospective scientific exhibitors for MSMA's 95th Annual Session are invited to submit their space applications to the Council on Scientific Assembly, according to Council Chairman Dr. C. G. Sutherland.

Set for May 13-16, 1963, the four-day meeting will have its headquarters in the Buena Vista Hotel in Biloxi. The scientific exhibit will be located in the new Hurricane Room E and will be open only to registered members and guests. MSMA policy precludes opening scientific and technical exhibits to the general public. First preference of limited space available in the scientific exhibit will be given members of the state medical association, said Dr. Sutherland. Other applicants eligible for consideration are out-of-state physicians and organizations and foundations having scientific presentations to make.

MSMA members presenting scientific exhibits are eligible for the scientific achievement award. Beginning with the 1963 meet, the award will be a mounted medallion designed especially for MSMA by L. G. Balfour Company of Attleboro, Mass. The winner's name and the year will be engraved on the medallion which supercedes the gold medal award of previous years. Nonmember exhibitors will compete for citations of honorable mention.

Dr. Sutherland stressed that letters of application should state the subject of the exhibit, physician or organizational sponsors, and minimum space requirement. Letters should be addressed to MSMA headquarters at 735 Riverside Drive, Jackson. Selection of exhibits will be made by a special committee of the Council on Scientific Assembly during early January 1963, said Dr. Sutherland.

Ground rules for the scientific exhibits prohibit mention of pharmaceutical or medicinal products by proprietary name. All booths must be attended during meeting hours by sponsors who are also responsible for erection and dismantling of exhibits.

School of Alcohol Studies Convenes for Second Session



Three faculty members for the second Southeastern School of Alcohol Studies talk over the school's August session held in Jackson. From left to right are Dr. Vernelle Fox, medical director, Georgian Clinic, Atlanta, Ga.; Dr. William E. Lotterhos, Jackson, and Mrs. Vashti I. Cain, supervisor, Alcohol and Narcotics Education, State Department of Education. The program, held on Millsaps College campus, was sponsored by the official state alcoholism programs in Alabama, Georgia, Florida, Mississippi, South Carolina, and Tennessee and the Regional office of the U. S. Public Health Service in Atlanta.

Preliminary Plans Approved For Hinds County Hospital



Preliminary plans have been approved for the proposed $3,750,000 Hinds County Hospital, according to Dr. Lawrence W. Long, chairman of the Medical Advisory Committee for the institution. Dr. Long said that part of the land for the hospital site has been acquired and an option to purchase the balance has been obtained. In August 1961 elections, Hinds County voters endorsed the hospital bond issue by a vote of almost 4 to 1. The 220-bed facility, to be located in Southwest Jackson, is scheduled to open sometime in 1965.

MHA Invests $91,500 In Heart Research

A total of $91,500 in Mississippi Heart Fund contributions is invested this year in heart disease research and training, according to Dr. Lucian Ferris of Vicksburg, Mississippi Heart Association president.

Dr. Ferris said that heart grants and fellowships awarded in the state total $73,050 while another $18,450 is earmarked for heart-blood vessel disease research elsewhere.

Included in the voluntary heart agency allocations is $20,000 annual support for the newly established Mississippi Heart Association research professor of cardiology in the Department of Medicine at the University of Mississippi School of Medicine.

Also at the University, five fellowships furnish support in the amount of $28,000 for scientists training in medicine, physiology, pharmacology, pediatrics, and surgery.

A continuing national grant of $8,250 to Dr. Arthur Guyton, university physiologist, will go into work on research instruments for analyzing blood flow. Two other University physiologists, Dr. Lowell Stone and Dr. Travis Richardson, are studying heart failure and circulatory pressure under heart grants. A biochemist, Dr. Harold White, will continue his studies of unsaturated fats and a grant to the UMC Department of Anesthesiology will go toward the exploration of the effects of anesthetics on the circulation.

A continuing grant to the University's Department of Medicine will support a comparative study of drugs in the treatment of hypertension.

Four University of Mississippi scientists also received Mississippi Heart Association grants. They are Dr. Theodore Bieber, chemistry; Dr. Lewis Nobles, graduate dean; Dr. Joseph Sams, pharmacy school, and Dr. Barton Milligan, chemistry.

Nine state "seeding" grants add up to $16,800.

Research into the causes and cures of heart disease is the primary purpose of the Mississippi Heart Association, according to Dr. Ferris. "Currently," he said, "46 per cent of all heart contributions are allocated for this effort."

State Cancer Division Slates Professional Seminar

The Mississippi Division, American Cancer Society, has scheduled a professional seminar for Thursday, Nov. 8. The meeting will be held at the Broadwater Beach Hotel in Biloxi from 1:30 to 5:00 p.m.

Five lectures and a panel discussion are planned for the afternoon-long program with speakers to be announced at a later date.

Further information may be secured from Miss Lucille Russ, executive director of the state division, at 733 North State Street.

Ob-Gyn Board Sets Exams for Dec. 14

The next scheduled examination of the American Board of Obstetrics and Gynecology, Part I, written, will be held Dec. 14, according to Dr. Robert L. Faulkner, executive secretary and treasurer.

Dr. Faulkner said the examination will be given at centers in the United States, Canada, and in military centers outside the continental United States.

Current bulletins may be obtained from Dr. Faulkner at 2105 Adelbert Road, Cleveland 6, Ohio.

Nutrition Emphasis Day Observed in Jackson

Nutrition Emphasis Day was observed Sept. 5 in Jackson by the Mississippi State Nutrition Council.

In a program open to the public, the latest information on nutrition was presented by four local practitioners. Dr. Michael Newton, professor and chairman, Department of Obstetrics and Gynecology, University of Mississippi School of Medicine, spoke on the nutritional aspects of pregnancy.

Dr. Nell Ryan, instructor in the University's Department of Pediatrics, talked on food habit formation in the early years. Dr. Alex C. Shotts, Jr., an orthodontist, discussed nutrition during tooth formation. Dr. Frank M. Wiygul, Jr., pediatric consultant of the State Board of Health considered facts and fallacies about nutrition.

Luncheon speaker for the day-long meeting was Dr. Willa Vaughn Tinsley, dean of the school of home economics, Texas Technological College.

Dr. David J. Van Landingham is MSMA's representative on the council.

Disaster Meet to Hear Dr. Culpepper

Dr. J. P. Culpepper, Jr., of Hattiesburg, AMA vice president, will be one of the speakers for the 13th County Medical Societies Conference on Disaster Medical Care. Theme for the meeting, which is set for Nov. 3-4 in Chicago, will be "Survival in the Sixties."

To be held at the Palmer House, the two-day meeting is sponsored by the American Medical Association's Council on National Security.

The question of survival in the sixties will be explored by means of six symposia. They are:

—Survival in the Western World.

—The American Community Looks at Civil Defense.

—Fallout and New Shelter Program.

—Natural Disasters and Community Hospitals: Are they prepared?

—National Self-Help Program and Austere Medical Care.

—What's New in Mass Casualty Care.

The symposium on "Survival in the Western World" will review medical preparedness in the U. S., Canada, and Europe. Speakers include Dr. James K. Shafer, health advisor, Office of Emergency Planning, Washington, D. C.; Dr. A. C. Hardman, chief, Emergency Health Services, Department of National Health and Welfare, Ottawa, Ontario, Canada; Dr. Daniel Thomson, Ministry of Health, London, W. 1., England, and Dr. Christian Toftemark, chairman, NATO Medical Committee, Copenhagen, Denmark.

Luncheon speakers will be Dr. Culpepper, and Dr. Dennis E. Welch of the Hermann Hospital, Houston.

Engineers Pledge Support Against Socialized Medicine

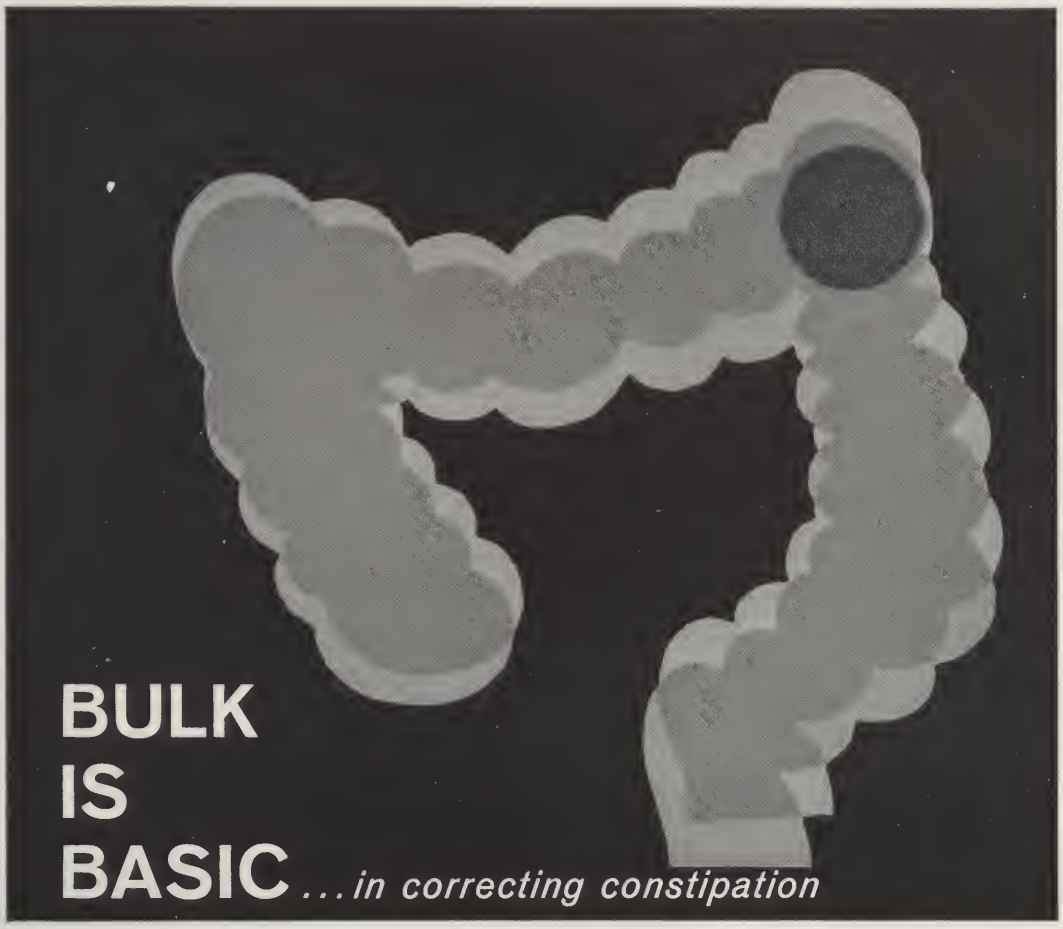
At their Biloxi meeting in July, the Mississippi Society of Professional Engineers adopted a resolution against socialized medicine and pledged their support to the Mississippi State Medical Association and the American Medical Association.

The resolution acknowledged the society's "joint responsibility with other professions to work for the general welfare of our country and its citizens" and noted that socialism is gaining in a number of fields with the medical profession now under direct attack.

C. W. Burch, society president, and S. C. Commander, secretary, both of Jackson, signed the resolution.



"Eve, I wonder how long it takes a rib resection to heal."



METAMUCIL®

BRAND OF PSYLLIUM HYDROPHILIC MUCILLOID

STRENGTHENS THE COLONIC REFLEX

"The natural stimulus to peristalsis[1]... is the distension of the intestinal wall...."

The effectiveness of Metamucil in correcting constipation is a direct result of its physiologic action.

The stimulus which initiates the defecatory reflex is the fecal mass in the lower sigmoid colon and rectum. Metamucil provides that mass as a bland, nonirritating, easily compressed bulk, similar in consistency to the normal protective mucus of the colon. Taken regularly, Metamucil tends to correct the insensitive reflex of a bowel abused by laxatives and to restore the natural responsiveness to the urge to stool.

Metamucil is available as Metamucil powder in 4, 8 and 16-oz. containers and as lemon-flavored Instant Mix Metamucil in cartons of 16 and 30 single-dose packets.

1. Best, C. H., and Taylor, N. B.: The Physiological Basis of Medical Practice, ed. 6, Baltimore, The Williams & Wilkins Company, 1955, p. 578.

G. D. SEARLE & CO.

CHICAGO 80, ILLINOIS

Research in the Service of Medicine

Chest Physicians Set Southern Meeting

The Southern Chapter of the American College of Chest Physicians will convene for its annual meeting on Nov. 11 and 12 at the Hotel Fontainebleau, Miami Beach. The meeting is scheduled in conjunction with the annual session of the Southern Medical Association, Nov. 12-15.

The Southern Chapter covers 16 Southern States and the District of Columbia. All physicians are invited to attend the meeting. There is no registration fee.

The chapter meeting will open on Sunday, Nov. 11 at 1:30 p.m., and the afternoon will be devoted to formal papers presented by leading chest specialists. At 3:00 p.m., Dr. Norman J. Wilson, Overholt Thoracic Clinic, Boston, Mass., will present the Ninth Paul Turner Memorial Lecture and will speak on "Surgery for Salvage Cases with Tuberculosis." The chapter will have a business meeting and an election of officers at 4:00 p.m.

For the first time, the Southern Medical Association and the Southern Chapter of the American College of Chest Physicians will co-sponsor Fireside Conferences. These will be held on Monday, Nov. 12, at 8:15 p.m.

Dr. Watts R. Webb of Jackson is secretary-treasurer of the Southern Chapter and will serve as a panelist at the Round Table luncheon discussions set for Monday, Nov. 12. Mississippians who will serve as discussion leaders and moderators for the Fireside Conferences are Drs. T. Walter Treadwell of Jackson; Myra D. Tyler of Jackson, and Clyde A. Watkins of Sanatorium.

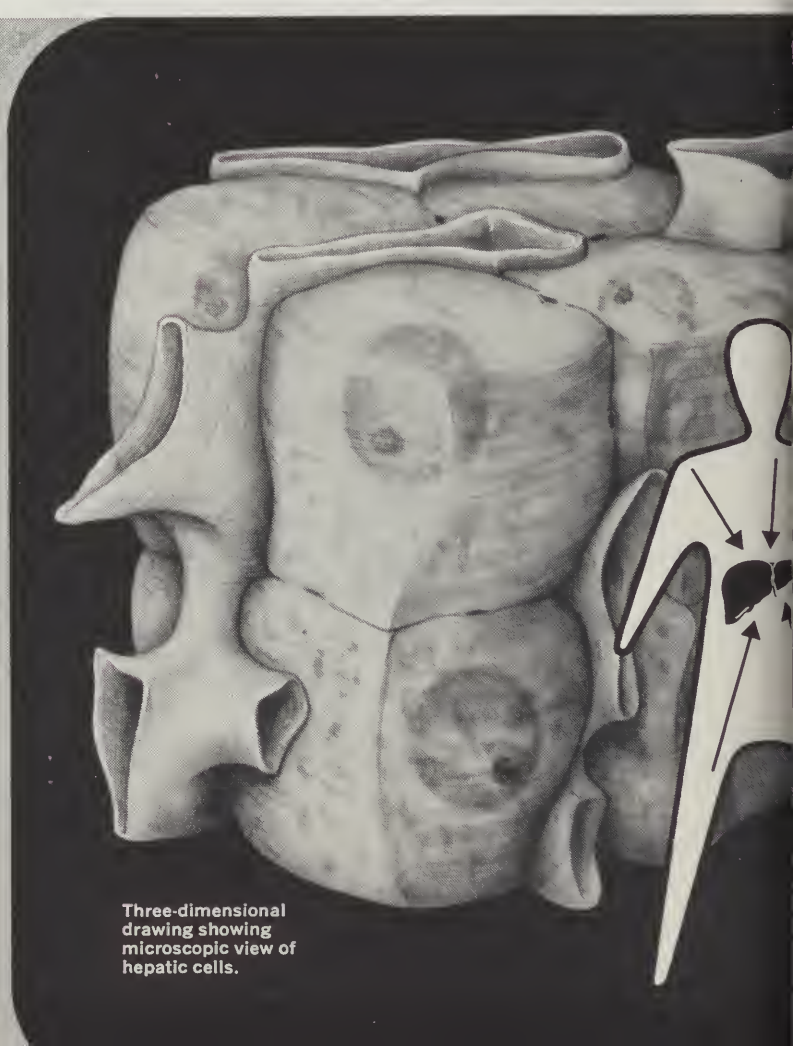
Interstate Assembly Offers Varied Program For GP's

The 47th annual Scientific Assembly of Interstate Postgraduate Medical Association, to be held at the Palmer House, Chicago, Oct. 1-4, offers 20½ hours of varied teaching and AAGP Category II credit for a registration fee of $10.

The program is especially suited to the needs of generalists, as all lectures, panels and clinics are closely related to medical problems familiar to the physician who does not devote his time to a single specialty. Panels on "Arthritis," "Diabetes," "Tranquilizers and Energizers," the "Medical and Surgical Treatment of Duodenal Ulcers,"

when the liver
is threatened or
damaged by fat
in
cirrhosis
alcoholism
hepatitis
obesity
diabetes

METHISCHOL®



Three-dimensional drawing showing microscopic view of hepatic cells.

and "Newer Treatment of Hypertension" are important parts of the three and one-half day program.

Interstate is not a "membership organization," but offers an annual teaching program for practitioners interested in a varied review of new developments in the major branches of medicine. The 1962 Assembly program offers educational exposure to more than 90 prominent medical educators, as teachers.

Those interested in full details of the program are urged to write for a brochure, by addressing a postal to N. A. Hill, M.D., Secretary, Interstate Postgraduate Medical Association, Box 1109, Madison 1, Wis.

SMA Schedules 56th Annual Session

The 56th annual meeting of the Southern Medical Association, to be held at the Hotel Fontainebleau in Miami Beach, Nov. 12-15, will be the largest in six years, according to Dr. J. Garber Galbraith, chairman of the SMA Council, the governing body of the association.

Not only is a record attendance of some 7,000 expected, Dr. Galbraith said, but the scientific sessions themselves will cover a wider range of topics. The 21 scientific section programs, from anesthesiology to urology, will have as guest speakers internationally known heads of departments in leading medical schools, outstanding professors of medicine, and veteran practitioners in various fields.

A featured speaker at the President's Luncheon, to be held Tuesday, Nov. 13, will be Dr. Edward Annis, president-elect of the American Medical Association.

Groups representing several of the medical specialties will meet conjointly with Southern Medical Association, participating in SMA's Section programs as well as their own meetings. Conjoint societies are American College of Chest Physicians, Southern Chapter; the College of American Pathologists, Gulf and Southeastern Regions; the Radiological Society of North America, and the Southern Gynecological and Obstetrical Society.

Fifteen medical schools have arranged to hold alumni reunions during the four-day sessions, with a number of social functions planned. Social activities also include a senior and junior golf tournament, President's Luncheon, President's Night Dinner-Dance, and the Woman's Auxiliary Doctor's Day Luncheon, tours of the area, and other informal affairs.

METHISCHOL ... the original, complete lipotropic formula together with a low fat, moderate protein diet, helps to prevent and treat fatty infiltration and fatty degeneration of the liver, and consequent cirrhosis by helping to...

remove infiltrated fat and thus reduce liver size and tendency to fibrosis

contribute to increased phospholipid turnover and regeneration of new liver cells

The suggested daily therapeutic dose of 9 Methischol capsules or 3 tablespoonfuls of Methischol syrup provides:

CHOLINE DIHYDROGEN CITRATE*	2.5 Gm.
dl, METHIONINE	1.0 Gm.
INOSITOL	0.75 Gm.
VITAMIN B_{12}	18 mcg.
LIVER CONCENTRATE AND DESICCATED LIVER**	0.78 Gm.

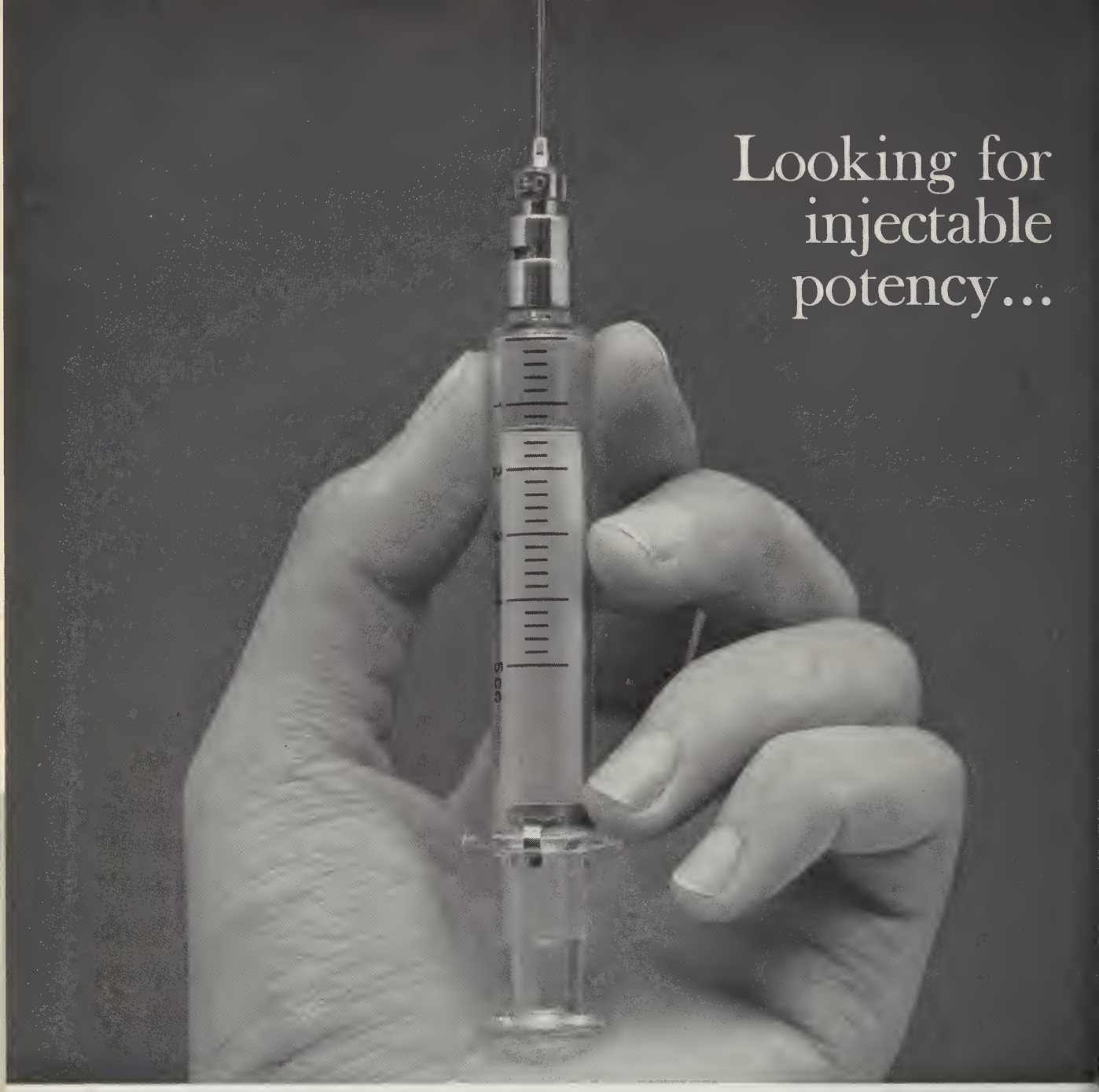
*Present in syrup as 1.14 Gm. Choline Chloride
**Present in syrup as 1.2 Gm. Liver Concentrate

capsules: 100, 250, 500, 1000; **syrup:** 16 oz. and 1 gallon

Samples of METHISCHOL and literature available from

u. s. vitamin & pharmaceutical corporation

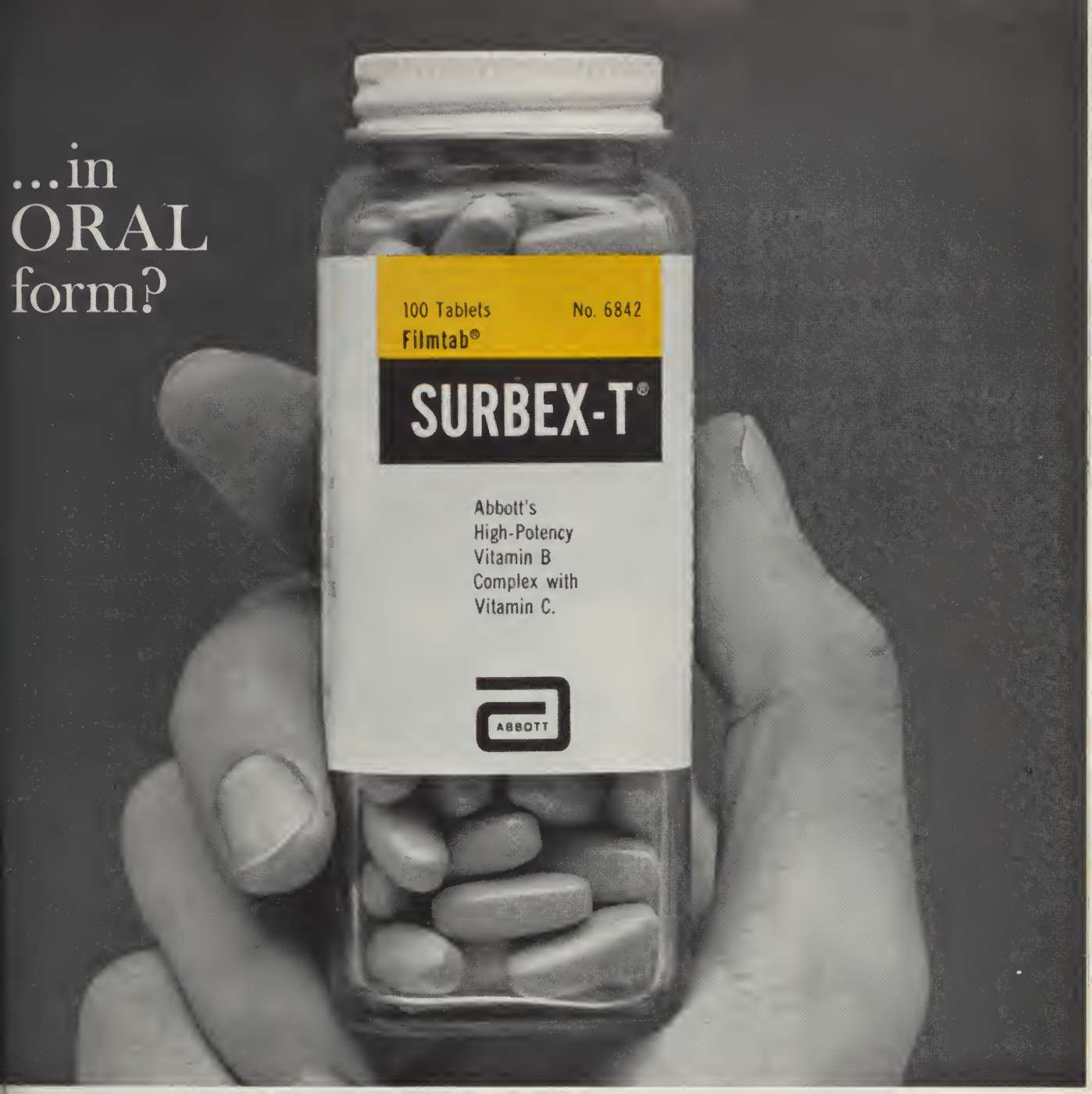
Arlington-Funk Laboratories, division—800 Second Ave., New York 17, N.Y.



FILMTAB®

SURBEX-T® provides therapeutic B-complex with 500 mg. of C

...in ORAL form?



Patients receive replenishment in the easiest possible manner when the water soluble vitamins are depleted, or demands are increased.

Each Filmtab® Surbex-T represents:

Thiamine Mononitrate (B_1)	15 mg.
Riboflavin (B_2)	10 mg.
Nicotinamide	100 mg.
Pyridoxine Hydrochloride	5 mg.
Cobalamin (Vitamin B_{12})	4 mcg.
Calcium Pantothenate (as calcium pantothenate racemic)	20 mg.
Ascorbic Acid (C) (as sodium ascorbate)	500 mg.
Desiccated Liver, N.F.	75 mg.
Liver Fraction 2, N.F.	75 mg.

...and when needs are more moderate, SUR-BEX® with C, Abbott's improved B-complex formula with 250 mg. of C.

ABBOTT

210270

Filmtab—Film-sealed tablets, Abbott: U.S. Pat. No. 2,881,085



NEW PORTABLE CAMBRIDGE EXTERNAL DEFIBRILLATOR

SIMPLIFIES SPEEDS STANDARDIZES CARDIAC RESUSCITATION

The design of the Cambridge Defibrillator emphasizes reliability, convenience and speed of operation—since time and reliability are of utmost importance. Based on latest medical findings, the Cambridge Defibrillator represents an important development in cardiac resuscitation. Fully portable, it offers many new operational features.

The Cambridge Defibrillator is operated by *one* person. It *eliminates* voltage estimating by providing two fixed settings—one for an adult, the other for a child. An *automatic* timing device assures the correct duration of the shock. A thumb button positioned on the right electrode—where it can be used most naturally and effectively—assures absolute control.

Exclusive circuit tester gives positive assurance that the instrument is in "go" condition. A reset control removes any chance of an accidental second shock. The comfortable "grip" electrode handles are non-conductive and are positioned to enable quick and positive electrode contact with the patient.

No operating room, intensive care unit, or recovery room can now be considered complete without a Cambridge External Defibrillator.

Examine and test the Cambridge Defibrillator, Doctor, and see how simple, uncomplicated and uncluttered an effective Defibrillator can be . . . and inexpensive, too! A demonstration of this new, complete instrument will be gladly given—**just** phone your nearest representative.



EASILY PORTABLE—SELF CONTAINED UNIT. Weighs only 26 lbs. Even the smallest nurse can carry it. All components are contained within a sturdy, compact aluminum case—no accessories to forget or lose.

BUILT-IN THUMB CONTROL. Right under the doctor's thumb on the electrode handle—where he can press it naturally, firmly and at the right instant.



Send for Bulletin 480

CAMBRIDGE INSTRUMENT COMPANY, INC.

Graybar Bldg., 420 Lexington Ave., N. Y. 17, N. Y.

In intestinal "grippe"

prompt 4 way check of diarrhea

- Curbs excessive peristalsis
- Adsorbs toxins and gases
- Soothes inflamed mucosa
- Provides intestinal antisepsis



POMALIN

TRADEMARK

Liquid

EFFECTIVE ANTIDIARRHEAL

FORMULA: *Each 15 cc. (tablespoon) contains:*

Sulfaguanidine U.S.P. ...	2 Gm.
Pectin N.F.	225 mg.
Kaolin	3 Gm.
Opium tincture U.S.P. ...	0.08 cc.
(equivalent to 2 cc. paregoric)	

DOSAGE: **Adults:** Initially 1 or 2 tablespoons from four to six times daily, or 1 or 2 teaspoons after each loose bowel movement; reduce dosage as diarrhea subsides.

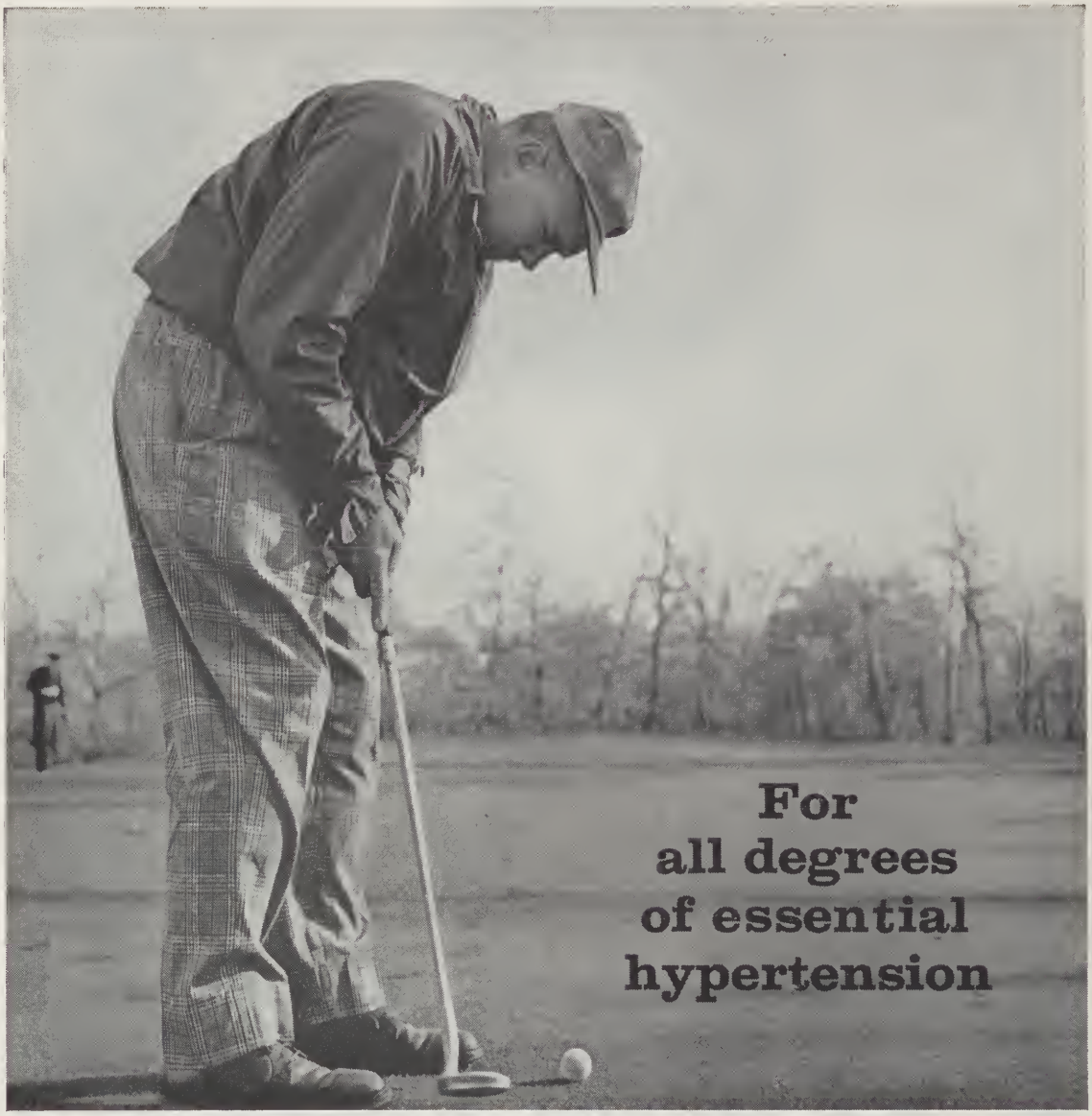
Children: ½ teaspoon (=2.5 cc.) per 15 lb. of body weight every four hours day and night until stools are reduced to five daily, then every eight hours for three days.

SUPPLIED: *Bottles of 16 fl. oz. (raspberry flavor, pink color)*
Exempt Narcotic. Available on Prescription Only.

Winthrop LABORATORIES
New York 18, N. Y.

Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.





"relief of symptoms is striking with Rautrax-N"†

Rautrax-N decreases blood pressure for almost all patients with mild, moderate or severe essential hypertension. Rautrax-N also offers a new sense of relaxation and well-being in hypertension complicated by anxiety and tension. And in essential hypertension with edema and/or congestive heart failure, Rautrax-N achieves diuresis of sodium and chloride with minimal effects on potassium and other electrolytes.

Rautrax-N combines Raudixin (antihypertensive-tranquilizer) with Naturetin c̄ K (antihypertensive-diuretic) for greater antihypertensive effect and greater effectiveness in relief of hypertensive symptoms than produced by either component alone. Rautrax-N is also flexible (may be prescribed in place of Raudixin or Naturetin c̄ K) and economical (only 1 or 2 tablets for maintenance in most patients).

Supply: Rautrax-N — capsule-shaped tablets providing 50 mg. Raudixin, 4 mg. Naturetin and 400 mg. potassium chloride. *Rautrax-N Modified* — capsule-shaped tablets providing 50 mg. Raudixin, 2 mg. Naturetin and 400 mg. potassium chloride.

†Hutchison J. C.: Current Therap. Res. *2*:487 (Oct.) 1960.

For full information, see your Squibb Product Reference or Product Brief.

Rautrax-N*

Squibb Standardized Rauwolfia Serpentina Whole Root (Raudixin) and Bendroflumethiazide (*Naturetin) with Potassium Chloride

SQUIBB *Squibb Quality — the Priceless Ingredient*

SQUIBB DIVISION Olin

'RAUDIXIN'®, 'RAUTRAX'®, AND' NATURETIN'® ARE SQUIBB TRADEMARKS.



Appetizing diet food gives a patient an incentive.

How to help your patient stick to a low calorie diet

The secret ingredient in a successful diet is acceptance. A low calorie diet that lets the patient work out equivalent variations will win his approval. A too-rigid diet begs to be broken. Pictured are dishes any dieter would find appetizing: chicken flavored with garlic, fruit-garnished gelatin, grapefruit, raw carrot, celery, pepper and radish nibbles. Variations might be broiled fish, simple green salads. All can be interestingly seasoned, attractively served, to keep the patient's enthusiasm from flagging.

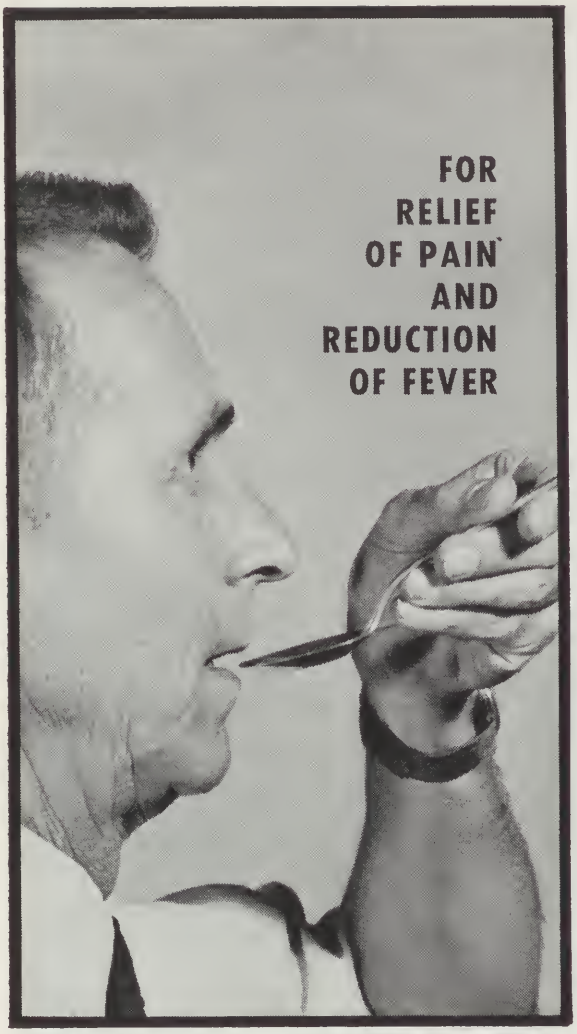


And a glass of beer can add zest to your patient's diet

104 calories, 8 oz. glass
(Average of American Beers)

United States Brewers Association, Inc.

For reprints of this and 11 other diet menus, write us at 535 Fifth Avenue, N.Y. 17, N.Y.





FEBRO-GESIC

A PALATABLE LIQUID ANALGESIC & ANTIPYRETIC PREPARATION

FEBRO-GESIC is recommended for the relief of pain and reduction of fever in conditions affecting muscles, bones, and joints. Febro-Gesic is further recommended for the symptomatic treatment of upper respiratory infections and many other painful conditions in which the salicylates and other non-narcotic analgesics are commonly used. The liquid preparation is particularly advantageous in patients, such as children, where the administration of tablets is difficult.

FEBRO-GESIC's ingredients may be considered quite safe but care should be exercised in children who may develop salicylate intoxication from any salicylate-containing preparation when used in excessive doses.

DOSAGE: For the average adult, 1 tsp. three times a day or as recommended by the physician. Children's dosage as recommended by the physician.

FEBRO-GESIC is supplied in pints or gallons.

Each fluid ounce of FEBRO-GESIC contains Acetaminophen, 15 grs., Caffeine, 2 grs., Sodium Salicylate, 50 grs.

FTP **First Texas** *Pharmaceuticals, Inc.*

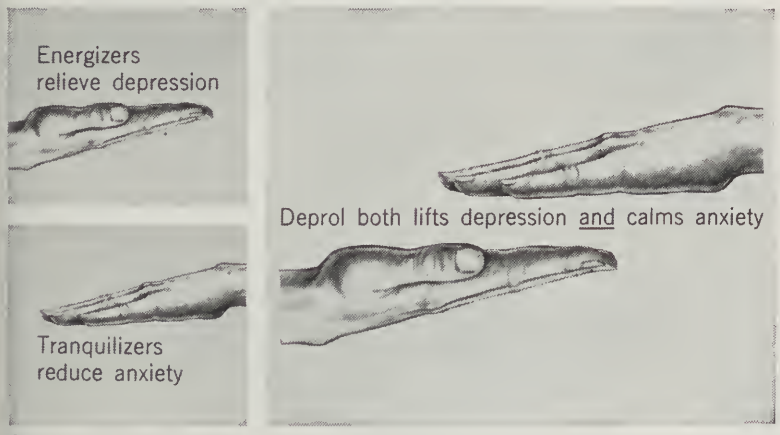
DALLAS • ATLANTA • SINCE 1901

LIFTS DEPRESSION ...AS IT CALMS ANXIETY



"I feel like my old self again!" Balanced Deprol therapy has helped relieve her insomnia and fatigue – her normal energy, drive and interest have returned.

Brightens mood...relaxes tension



Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this may be increased gradually up to 3 tablets q.i.d. With establishment of relief, the dose may be reduced gradually to maintenance levels.

Composition: 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl) and 400 mg. meprobamate.

Supplied: Bottles of 50 light-pink, scored tablets.

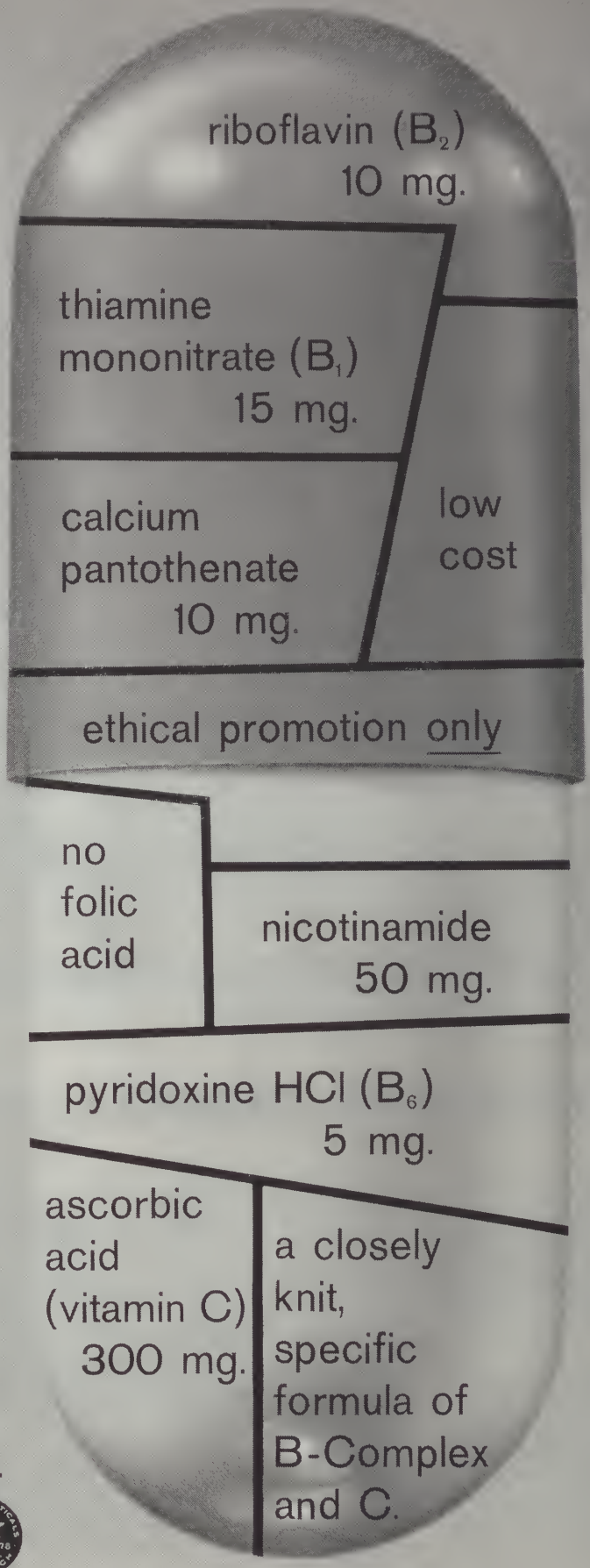
Write for literature and samples.

Deprol®

WALLACE LABORATORIES
Cranbury, N. J.

CD-7393

this is what Allbee® with C is made of!



A. H. Robins Company, Inc.
Richmond 20, Virginia

RELIEVE THE COLD SUPPRESS THE COUGH WITH NEW

'EMPRAZIL-C'

TABLETS

ANTITUSSIVE ▪ DECONGESTANT ▪ ANALGESIC

Each tablet contains:

Codeine Phosphate*	15 mg.
'Sudafed'® brand Pseudoephedrine Hydrochloride	20 mg.
'Perazil'® brand Chlorcyclizine Hydrochloride	15 mg.
Acetophenetidin	150 mg.
Aspirin (Acetylsalicylic Acid)	200 mg.
Caffeine	30 mg.

*Warning—may be habit forming.

Complete literature available on request.

Also available without codeine as

'EMPRAZIL'®

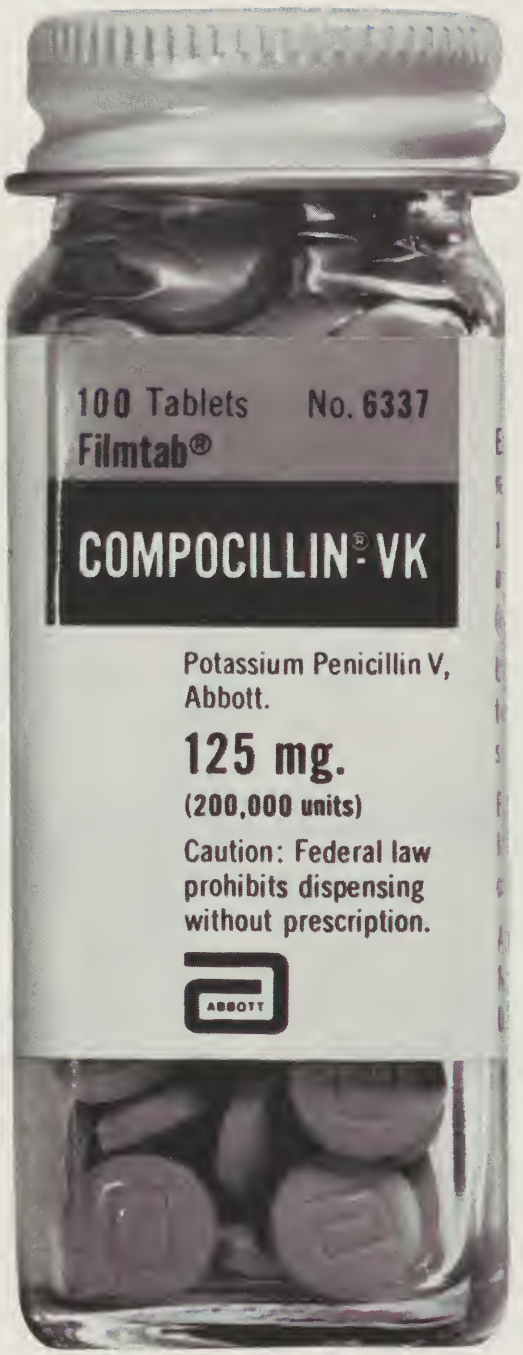
TABLETS



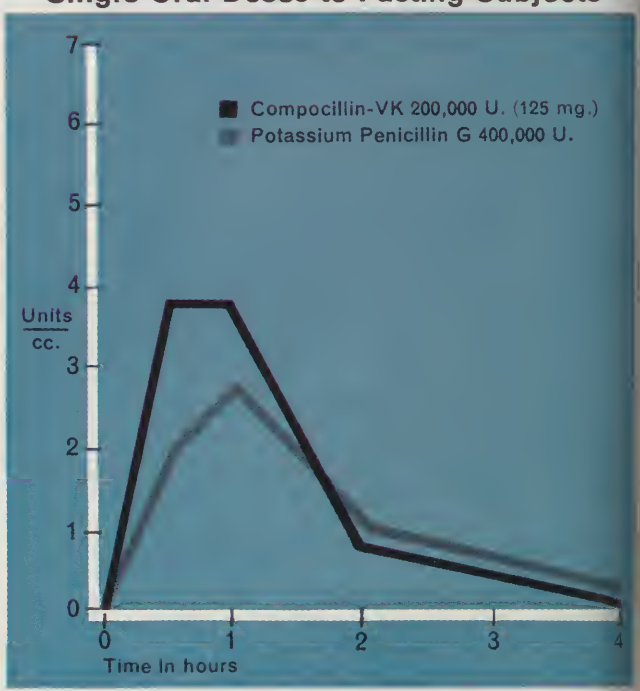
BURROUGHS WELLCOME & CO. (U.S.A.) INC., TUCKAHOE, N.Y.

Here's a penicillin that gives you...

PATIENT ECONOMY WHEN YOU WANT IT



Single Oral Doses to Fasting Subjects*



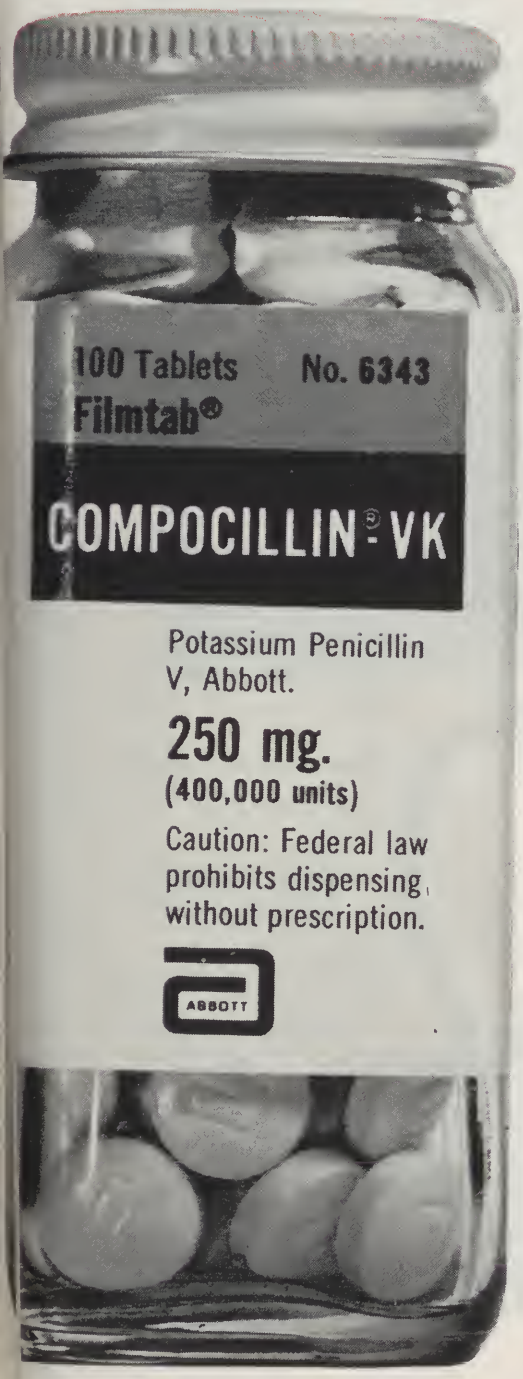
Consider milder bacterial infections

An example might be a respiratory infection. Here economy could be a definite factor in your thinking. In the chart above, you'll see that 200,000 units (125 mg.) of Compocillin VK produces blood levels at least equal to those obtained with 400,000 units of oral penicillin G potassium. This means that in less severe infections, Compocillin-VK may be given at *half* the dosage needed with oral penicillin G—with no sacrifice in blood levels. In these cases, the cost of Compocillin-VK therapy will be no more—and often will be less—than treatment with oral penicillin G.

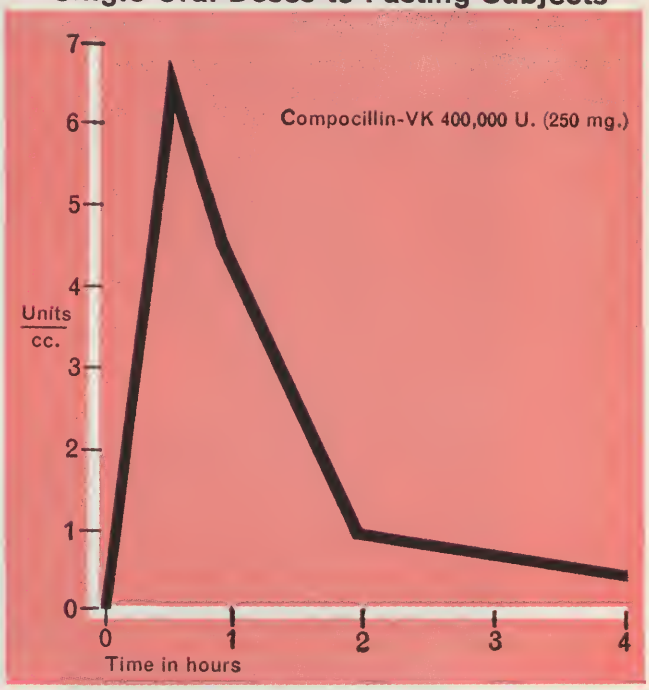
Compocillin-VK—the original potassium penicillin V • In Filmtab (125 and 250 mg.) and cherry-flavored Granules for Oral Suspension

Filmtab—Film-sealed tablets, Abbott: U.S. Pat. No. 2,881,085

PEAK EFFICIENCY WHEN YOU NEED IT



Single Oral Doses to Fasting Subjects*



Then, for severe infections...

. . . where your primary concern is high peak serum concentrations, you can prescribe Compocillin-VK at *full therapeutic dosage* and get the maximum antibacterial activity possible with an oral penicillin. The chart above shows the rapid peak blood levels obtained with 400,000 units (250 mg.) of Compocillin-VK. Actually, these peaks occur faster—and are higher—than those obtained with intramuscular penicillin G. Indeed, Compocillin-VK has been used in cases previously reserved for parenteral treatment. The safety advantage (oral vs. injectable) goes without saying.

*Chart data from two separate studies completed by the Microbiologic and Medical Departments of Abbott Laboratories.

ABBOTT LABORATORIES NORTH CHICAGO, ILLINOIS

210274

NEW **SPECIAL COUGH FORMULA**
for Children

Pediacof

Trademark

SOOTHING DECONGESTANT AND EXPECTORANT

Each teaspoon (5 cc.) contains:

Codeine phosphate	5.0 mg.
Neo-Synephrine® hydrochloride (brand of phenylephrine hydrochloride)	2.5 mg.
Chlorpheniramine maleate	0.75 mg.
Potassium iodide	75.0 mg.



Bright red, pleasant tasting, raspberry flavored syrup

Dosage:

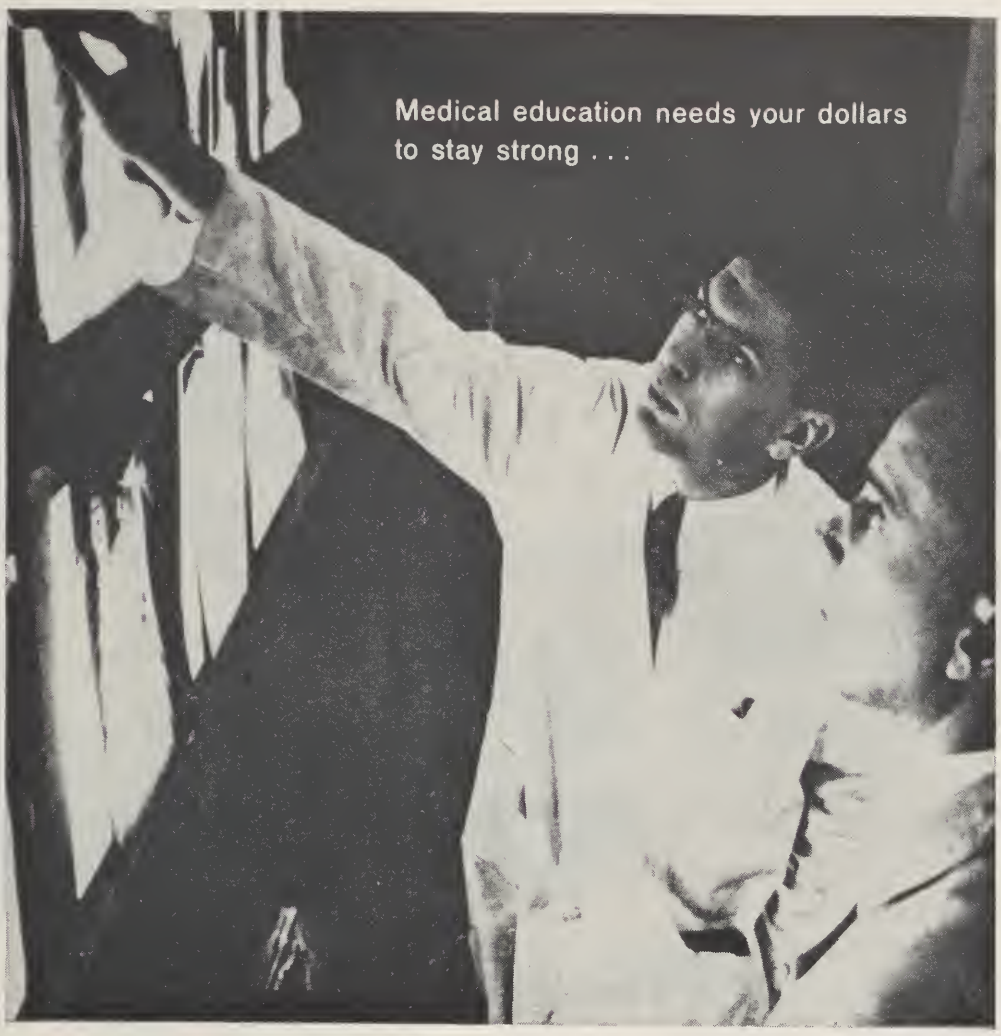
Children from 6 months to 1 year, 1/4 teaspoon; 1 to 3 years, 1/2 to 1 teaspoon; 3 to 6 years, 1 to 2 teaspoons; 6 to 12 years, 2 teaspoons. Every four to six hours as needed.

How Supplied:
Bottles of 16 fl. oz.

Exempt Narcotic

Winthrop
LABORATORIES
New York 18, N. Y.

Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.



Give to the
school of your choice
through AMA-ERF

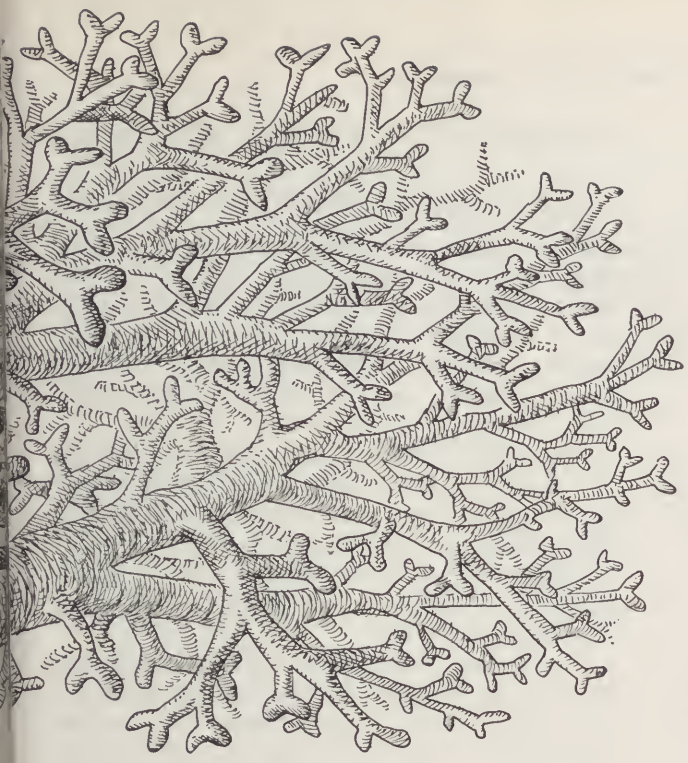
To train the doctors of tomorrow, the nation's medical schools must have your help today. It is a physician's unique privilege and responsibility to replenish his own ranks with men educated to the highest possible standards. *Invest in the future health of the nation and your profession. Send your check today!*

AMA-ERF

AMERICAN MEDICAL ASSOCIATION
EDUCATION AND RESEARCH FOUNDATION
535 North Dearborn St., Chicago 10, Illinois

gratifying
relief
in bronchial
asthma





unsurpassed for total patient benefits

Aristocort®

Triamcinolone Lederle



With ARISTOCORT, asthmatic patients obtain sustained relief of wheezing, dyspnea, and spasmodic coughing. It is of particular value in ameliorating severe attacks that may have serious sequelae. With ARISTOCORT, many patients who might otherwise be invalids are able to continue their customary livelihoods or maintain their regular household activities. Yet this symptomatic relief is not often accompanied by the hormonal collateral effects —sodium retention, edema, emotional disturbance, insomnia, voracious appetite— that so often have been a deterrent to steroid therapy.

SUPPLIED: Scored tablets (three strengths), syrup and parenteral. Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

Lederle

LEDERLE LABORATORIES
A Division of
American Cyanamid Company
Pearl River, New York

Control Constipation
Without Interference

PRULET®



A MILD REFLEX
ACTING
LAXATIVE...

does not interfere with other conditions under treatment.

The active ingredient of Prulet,® Bis(p-acetoxyphenyl) -oxindole, is analogous to a substance found in prunes. Completely recoverable from the feces, it has no deleterious effect on the vital organs. It is completely free from side effects, such as coloring of the urine, hyperemia and flatulence. During lactation no portion of the active ingredient of Prulet® appears in the milk and it has no effect on the nursing infant.

PRULET®...

provides therapeutic effectiveness with milligram dosage.

EASY TO TAKE: Prulet® tablets are small, odorless, and tasteless.

SUPPLIED: Bottles of 60.

EACH TABLET CONTAINS:
Bis (p-acetoxyphenyl)-oxindole . . . 5 mg

DOSAGE: One or two tablets before retiring until regularity is achieved or as directed by a physician.

PRECAUTIONS: Presence of nausea, vomiting, abdominal pains, or other symptoms of appendicitis.

COMPLETE LITERATURE AND SAMPLES UPON REQUEST

Mission Pharmacal Co.
SAN ANTONIO 6, TEXAS

PR-61

AHA Schedules 1962 Scientific Sessions

The American Heart Association has scheduled six all-day programs on clinical cardiology of primary interest to the practicing physician at its annual Scientific Sessions. The 1962 Scientific Sessions will be held from Friday, Oct. 26, through Sunday, Oct. 28, in the Public Auditorium, Cleveland, Ohio.

The clinical sessions will run simultaneously with regular scientific sessions and programs dealing with special aspects of cardiovascular research. Each clinical session will include the presentation of original clinical investigative work, panels, symposia, and lectures. An outline of the three-day program follows:

Friday, Oct. 26: The sessions on Clinical Cardiology will include a panel on "Peripheral Arteriosclerosis" and a symposium on "Medical Management of Hypertension." Concurrent sessions will be held on circulation, high blood pressure research, rheumatic fever and congenital heart disease, arteriosclerosis, and cardiovascular surgery.

Saturday, Oct. 27: Included in the clinical program are an address by Dr. J. Scott Butterworth, AHA president; the Connor Memorial Lecture by Dr. George E. Miller, of Chicago, on "Pride and Prejudice in Professional Education"; presentation of the Association's Research Achievement Award; a symposium on "Appraisal of Open Heart Surgery for Acquired Valvular Disease"; and a lecture on "Syncope." Simultaneous scientific sessions are scheduled on basic science and biophysical methods in the study of the circulation. Sessions will also be held for nurses and dietitians.

As in the past, Cardiovascular Conferences will be held on Saturday evening.

Sunday, Oct. 28: The clinical sessions include the George E. Brown Memorial Lecture by Dr. Donald E. Gregg of Washington, D. C., on "Physiology of Coronary Circulation," a lecture on "Frequently Unrecognized Forms of Heart Disease," and a panel on "Pitfalls in Diagnosis of Coronary Artery Disease." The scientific program includes a panel for industrial physicians on "Strain and Trauma of the Heart and Great Vessels" and an all-day showing of cardiovascular films, with introductions and commentary by the author or other authority on the subject.

Scientific and industrial exhibits will be on display in the auditorium.

Registration forms, which include applications for hotel reservations, are available from the American Heart Association, 44 East 23rd Street, New York 10, N. Y.

INDEX TO ADVERTISERS

In accepting advertising for publication, the JOURNAL has exercised reasonable precaution to insure that only reputable, factual advertisements are included. Nevertheless, claims made by advertisers in behalf of goods, services, and medicinal preparations, apparatus or physical appliances are understood to be those of the advertiser. Neither sanction nor endorsement of such is warranted, stated, or implied by the association.

Adv. page

Abbott Laboratories ..... insert, 30, 31, 40, 41
AMA-ERF 43
Ames Company 49
Appalachian Hall 48

Blue Cross 11
Burroughs Wellcome 12, 39

Cambridge Instrument Company 32
Chicago Medical Society 22

Desitin Chemical Company 6

J. H. Filbert, Inc. 17
First Federal of Jackson ..... before center
First Texas Pharmaceuticals 36

Hill Crest Sanitarium 48

Kay Surgical 22

Lederle Laboratories 10, 44, 45
Eli Lilly ..... front cover, 26
P. Lorillard Company 15

Mission Pharmacal Company 46
Mutual of Omaha ..... center

Parke, Davis and Company 2, 3
Pfizer Laboratories 20, 21
William P. Poythress 23

A. H. Robins 13, 38
Roche Laboratories ..... back cover

St. Paul Fire and Marine Insurance Company 22
W. B. Saunders 7
Sardeau 24
Schering Corporation 25
G. D. Searle 27
Smith Kline & French 14
E. R. Squibb 8, 34

U. S. Brewers 35
U. S. Vitamin 28, 29
Upjohn Company 19

Wallace Laboratories 9, 18, 37
Winthrop Laboratories .... 4, 16, after center, 33, 42

Articles for Publication

Manuscripts should be typewritten, double spaced on one side of the paper. Tables, charts, and tabulations should be submitted on separate sheets but their position in the text should be indicated. Authors are encouraged to limit bibliographies to 10 references, written in conformation to style utilized in scientific publications of the American Medical Association. Articles are accepted for publication on the condition that they have not been previously published and are contributed solely to this JOURNAL.

A thesis summary of 75 to 100 words must accompany each manuscript separately from the text. Figures and drawings are acceptable when prepared with black ink on white paper. Photographs for illustrations should be unmounted, untrimmed, glossy prints and all such material must be identified. No charges are made to authors for illustration engravings not exceeding four column inches per printed page.

Reprints may be obtained at cost from the association. The right is reserved to decline any manuscript for publication. Ordinarily, manuscripts submitted will be acknowledged whether published or not.



CLASSIFIED

Well-trained general practitioner wanted by growing group in central Mississippi community. Complete city advantages for practice and family. Income commensurate with willingness to work. Write, giving full personal and professional details, to Dept. 216, JOURNAL MSMA, 735 Riverside Drive, Jackson.

General surgeon needed to affiliate with group. Good professional practice circumstances in midstate area. Fine schools, churches, recreation for doctor's family. Ample financial return for competent, energetic man. Write, giving full personal and professional details, to Dept. 217, JOURNAL MSMA, 735 Riverside Drive, Jackson.



Out-Patient Clinic and Offices

HILL CREST SANITARIUM

Established in 1925

FOR NERVOUS AND MENTAL DISEASES
AND ADDICTION PROBLEMS

James A. Becton, M.D. — James Keen Ward, M.D.

P. O. Box 2896, Woodlawn Station, Birmingham 6, Ala. — Phone 595-1151 and 595-1152

APPALACHIAN HALL

ESTABLISHED — 1916

ASHEVILLE — NORTH CAROLINA



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.

Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.

Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

Wm. Ray Griffin, Jr., M.D. — Mark A. Griffin, Sr., M.D.

Robert A. Griffin, M.D. — Mark A. Griffin, Jr., M.D.

For rates and further information, write: APPALACHIAN HALL, ASHEVILLE, N. C.



NEW!

DECHOLIN-BB®

COUNTERACTS 3 COMMON CAUSES in functional G.I. disturbances related to hepatobiliary dysfunction

TENSION	SPASM	STASIS
butabarbital sodium (Warning: may be habit-forming) 15 mg. (¼ gr.)	belladonna extract 10 mg. (⅙ gr.)	dehydrocholic acid, AMES 250 mg. (3¾ gr.)

Available: Bottles of 100 tablets.

for **spasm** and **stasis**

DECHOLIN® WITH BELLADONNA

belladonna extract, 10 mg. (⅙ gr.)
dehydrocholic acid, AMES, 250 mg. (3¾ gr.)

for **stasis** alone

DECHOLIN®

dehydrocholic acid, AMES, 250 mg. (3¾ gr.)

Available: Bottles of 100 and 500 tablets.

Average Adult Dose—DECHOLIN-BB, DECHOLIN with Belladonna, and DECHOLIN—1 or, if necessary, 2 tablets three times daily.
Contraindications: Biliary tract obstruction, acute hepatitis, and (DECHOLIN with Belladonna and DECHOLIN-BB) glaucoma or prostatic hypertrophy. 19562

AMES
COMPANY, INC
Elkhart • Indiana
Toronto • Canada

LIBRARIAN
NAT LIBRARY OF MED
WASHINGTON 25 D C

specific for anxiety & tension

Librium

The singular specificity of Librium in controlling anxiety and tension has proven to be an advantage in a wide range of disorders characterized by anxiety of varying degrees. Notably effective in patients whose symptoms are primarily emotional, Librium is equally valuable when organic disease is aggravated or prolonged by accompanying anxiety. Coupled with its effectiveness is an outstanding record of safety. Librium has few, if any, of the unwanted side effects associated with tranquilizers and daytime sedatives—no extrapyramidal effects, no autonomic blocking, and no dulling of mental alertness. Consult literature and dosage information, available on request, before prescribing.

the successor to the tranquilizers

LIBRIUM® Hydrochloride—7-chloro-2-methylamino-5-phenyl-3H-1,4-benzodiazepine 4-oxide hydrochloride

ROCHE

ROCHE

JOURNAL OF THE Mississippi STATE MEDICAL ASSOCIATION

NOVEMBER 1962

NATIONAL LIBRARY
OCT 30 1962
OF MEDICINE

the longest "needle" in the world



It never stings—needs no sterilizing. It reaches all the way from your office to the patient's home to give him potent penicillin therapy as often and as ng as he needs it. It's an *oral* "needle," of course . V-Cillin K®. . . the penicillin that makes oral erapy as effective as intramuscular, but safer—d much more pleasant.

Cillin K® (potassium phenoxymethyl penicillin, Lilly) (penicillin V tassium)

Sometimes your judgment dictates parenteral penicillin for your office patients. But to extend that therapy, take advantage of the longest "needle" in the world . . . V-Cillin K.

Tablets V-Cillin K, 125 or 250 mg. (scored).

V-Cillin K, Pediatric, 125 mg. per 5 cc., in 40 and 80-cc.-size packages.

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana.

Lilly

233280

This Month . . . Appendicitis in Children, Postmortem Cesarean Section, Urinary Fistulae, Polio Immunization, Doodling



"...the world forgetting, by the world forgot"



DILANTIN®

PERMITS THE EPILEPTIC TO SAVOR THE PLEASURES OF LIFE *"DILANTIN has brought new hope to an entire generation of seizure patients...."[1] By reducing both the incidence and severity of attacks, DILANTIN contributes to a more normal life for the epileptic at home...at work...and at play. In grand mal and psychomotor seizures, DILANTIN is the drug of choice for a variety of reasons: effective control of seizures[1-9] • oversedation not a problem[2] • possesses a wide margin of safety[3] • low incidence of side effects[3] • its use is often accompanied by improved memory, intellectual performance, and emotional stability.[10] DILANTIN Sodium (diphenylhydantoin sodium, Parke-Davis) is available in several forms, including Kapseals,® 0.03 Gm. and 0.1 Gm., bottles of 100 and 1,000. Other members of the PARKE-DAVIS FAMILY OF ANTICONVULSANTS for grand mal and psychomotor seizures: PHELANTIN® Kapseals (Dilantin 100 mg., phenobarbital 30 mg., desoxyephedrine hydrochloride 2.5 mg.), bottles of 100; for the petit mal triad: MILONTIN® Kapseals (phensuximide, Parke-Davis), 0.5 Gm., bottles of 100 and 1,000; Suspension, 250 mg. per 4 cc., 16-ounce bottles. CELONTIN® Kapseals (methsuximide, Parke-Davis), 0.3 Gm., bottles of 100. ZARONTIN® Capsules (ethosuximide, Parke-Davis), 0.25 Gm., bottles of 100.*

This advertisement is not intended to provide complete information for use. Please refer to the package enclosure, medical brochure, or write for detailed information on indications, dosage, and precautions.

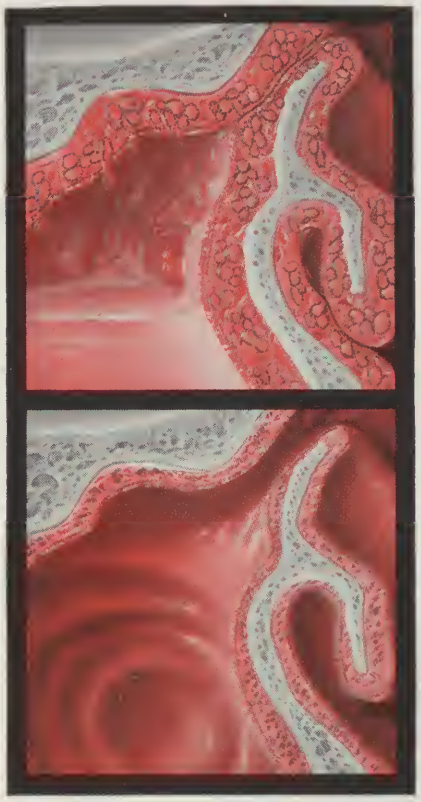
REFERENCES: (1) Roseman, E.: Neurology **11**:*912, 1961. (2) Bray, P. F.:* Pediatrics **23**:*151, 1959. (3) Chao, D. H.; Druckman, R., & Kellaway, P.: Convulsive Disorders of Children, Philadelphia, W. B. Saunders Company, 1958, p. 120. (4) Crawley, J. W.:* M. Clin. North America **42**:*317, 1958. (5) Livingston, S.: The Diagnosis and Treatment of Convulsive Disorders in Children, Springfield, Ill., Charles C Thomas, 1954, p. 190. (6) Ibid.:* Postgrad. Med. **20**:*584, 1956. (7) Merritt, H. H.:* Brit. M. J. **1**:*666, 1958. (8) Carter, C. H.:* Arch. Neurol. & Psychiat. **79**:*136, 1958. (9) Thomas, M. H., in Green, J. R., & Steelman, H. F.: Epileptic Seizures, Baltimore, The Williams & Wilkins Company, 1956, p. 37. (10) Goodman, L. S., & Gilman, A.: The Pharmacological Basis of Therapeutics, ed. 2, New York, The Macmillan Company, 1956, p. 187.*

PARKE-DAVIS

89462 PARKE, DAVIS & COMPANY, Detroit 32, Michigan



In colds and sinusitis unsurpassed in providing drainage space without chemical harm



The clogged sinus
In sinusitis, the mucous membrane becomes hyperemic and edematous, lymph glands and goblet cells hyperactive. Ostium is closed by edema and secretions cannot drain freely.

The normal sinus
Magnified anatomy of a portion of maxillary sinus showing mucous membrane with cilia and lymph glands. Ostium is normal and patent.

NEO-SYNEPHRINE®

brand of phenylephrine hydrochloride

hydrochloride

NASAL SPRAYS AND SOLUTIONS

When there is nasal turgescence, tiny orifices of sinus ostia tend to clog. Neo-Synephrine nasal solutions and sprays reduce edematous tissues on contact to provide prompt relief. As turbinates shrink, obstructed sinus ostia open, drainage and breathing become freer and the boggy feeling of a cold disappears.

Delicate respiratory tissue and its natural defenses are not harmed by exceptionally bland Neo-Synephrine; systemic effects are nil; it does not sting. For years it has been recommended for prevention and treatment of sinusitis.[1-3] Repeated applications do not lessen effectiveness.

Available in plastic nasal sprays for adults (½%) and children (¼%), in dropper bottles of ⅛, ¼ or 1 per cent.

1. Grant, L. E.: Coryza and nasal sinus infections, **Clin. Med. & Surg.** 42:121, March, 1935. 2. Putney, F. J.: Sinus infection, in Conn, H. F. (Ed.): Current Therapy 1952, Philadelphia, W. B. Saunders Company, 1952, p. 110. 3. Simonton, K. M.: Current treatment of sinusitis, **Journal-Lancet** 79:535, Dec., 1959.

Winthrop LABORATORIES
New York 18, N.Y.

Volume III
Number 11
November 1962



JOURNAL of the Mississippi STATE MEDICAL ASSOCIATION

• EDITOR
WILLIAM M. DABNEY, M.D.

• ASSOCIATE EDITORS
DEWITT HAMRICK, M.D.
GEORGE H. MARTIN, M.D.

• MANAGING EDITOR
ROWLAND B. KENNEDY

• EDITORIAL ASSISTANT
BETTY M. SADLER

• PUBLICATIONS COMMITTEE
LAWRENCE W. LONG, M.D.
Chairman
B. B. O'MARA, M.D.
WILLIAM E. LOTTERHOS, M.D.
and the Editors

• THE ASSOCIATION
C. P. CRENSHAW, M.D.
President
JOHN G. ARCHER, M.D.
President-elect
C. G. SUTHERLAND, M.D.
Secretary-Treasurer
B. B. O'MARA, M.D.
Speaker
HOWARD A. NELSON, M.D.
Vice Speaker
ROWLAND B. KENNEDY
Executive Secretary
CHARLES L. MATHEWS
Assistant Executive Secretary

The JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION is owned and published by the Mississippi State Medical Association, founded 1856. Editorial, executive, and business offices, 735 Riverside Drive, Jackson, Mississippi; office of publication, 1201-5 Bluff Street, Fulton, Missouri. Subscription rate, $5 per annum; $1 per copy, as available. Advertising rates furnished on request. Second-class postage paid at the post office at Fulton, Missouri.

CONTENTS

ORIGINAL PAPERS

Urinary Fistulae **485** JOHN J. MURPHY, M.D.

Cytoplasmic Fluorescence of Malignant Cells **492** STEPHEN L. GAMMILL, B.A., B.S., DALTON V. JOHNSON, and JOEL G. BRUNSON, M.D.

Acute Appendicitis in Children **497** LUTHER A. LONGINO, M.D.

Postmortem Cesarean Section **502** HOMER G. ELLIS, M.D.

SPECIAL ARTICLES

CPC XXXIV **505** Mississippi Baptist Hospital

Radiologic Seminar VII: Hypertrophic Osteoarthropathy **510** WILLIAM M. FANT, M.D.

Polio Immunization—Where Do We Stand? **512** Interview with A. L. GRAY, M.D.

Doodling **514** BETTY M. SADLER

EDITORIALS

Scoreboard on the Specialities **519** Ingredient of Civilization

Don Juan, M.D. **520** Women's Choice

The Case of the Nibbled Necklace **520** Beware the Jequirity

We Want *Your* View **521** Your JOURNAL MSMA

THIS MONTH

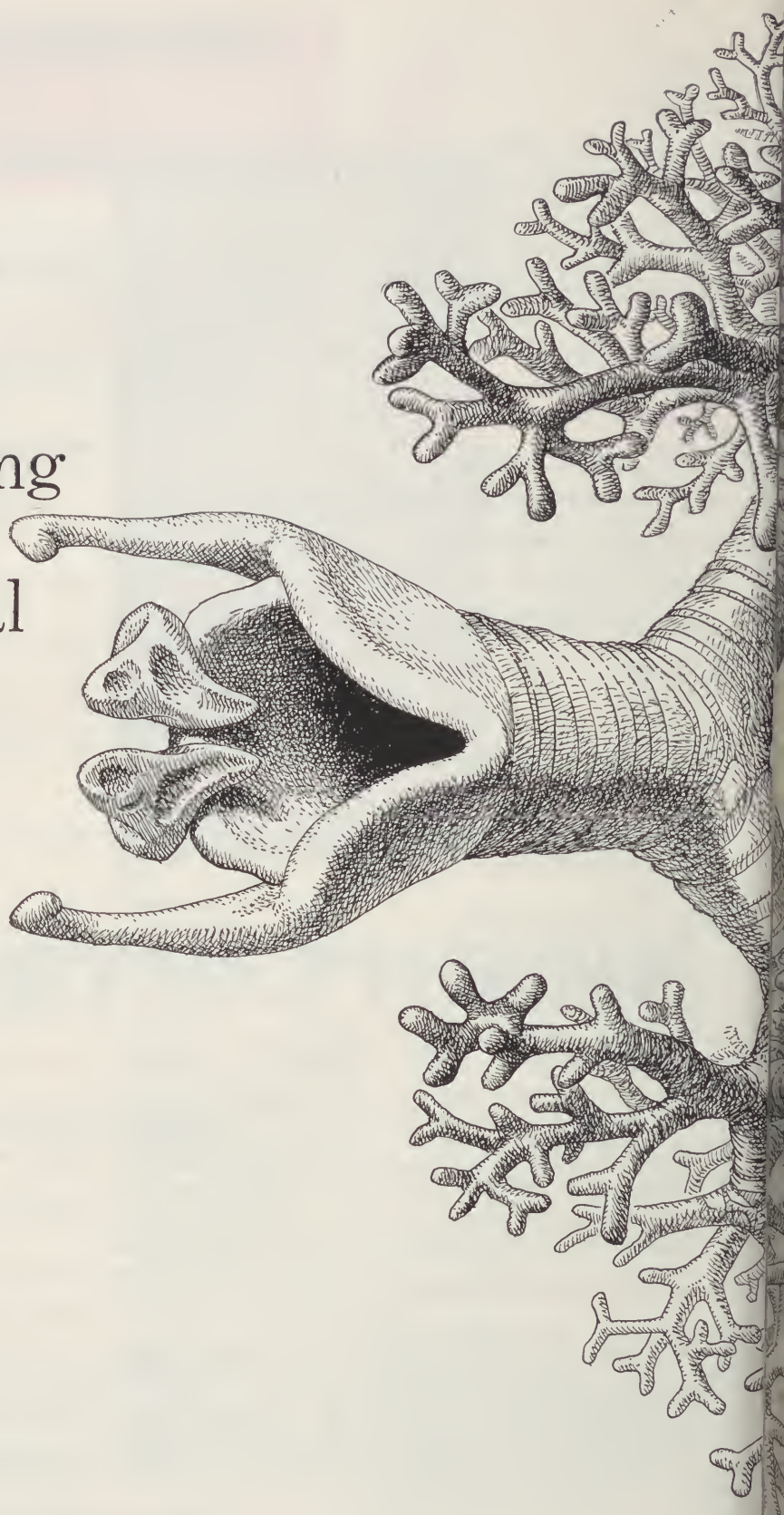
The President Speaking **518** 'Socialized Statistics'

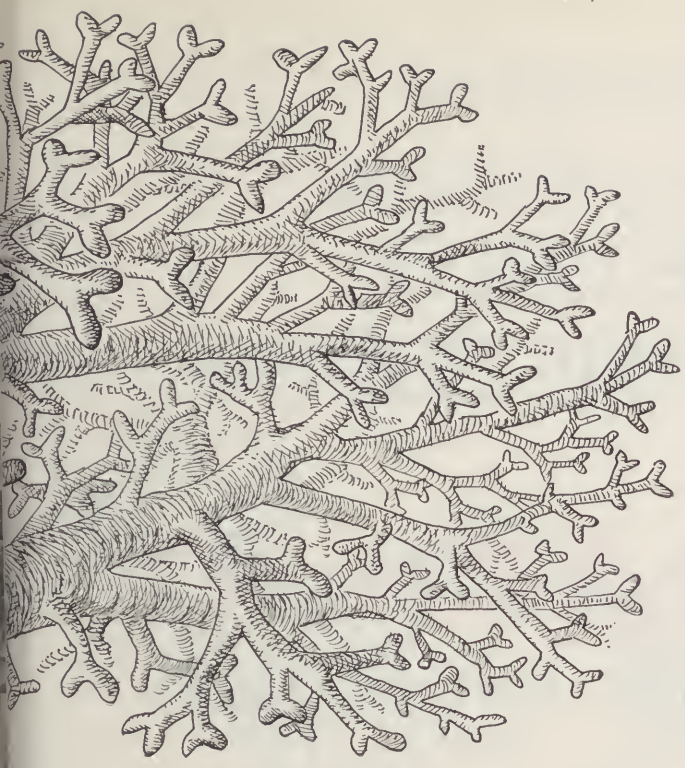
The Literature **523** Books and Journals

Medical Organization **525** MAGP Meet

Copyright 1962, Mississippi State Medical Association

gratifying
relief
in bronchial
asthma

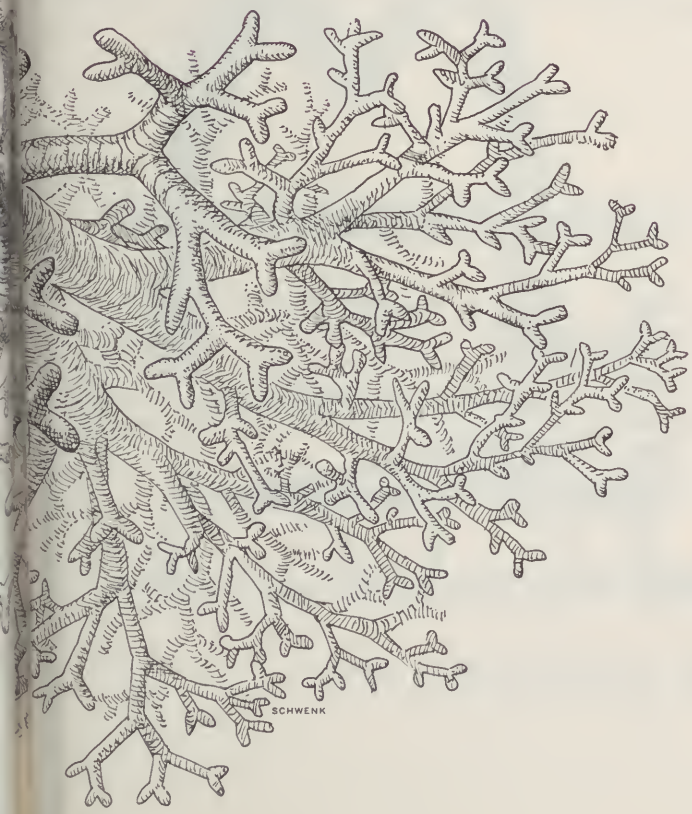




unsurpassed for total patient benefits

Aristocort®

Triamcinolone Lederle



With ARISTOCORT, asthmatic patients obtain sustained relief of wheezing, dyspnea, and spasmodic coughing. It is of particular value in ameliorating severe attacks that may have serious sequelae. With ARISTOCORT, many patients who might otherwise be invalids are able to continue their customary livelihoods or maintain their regular household activities. Yet this symptomatic relief is not often accompanied by the hormonal collateral effects —sodium retention, edema, emotional disturbance, insomnia, voracious appetite— that so often have been a deterrent to steroid therapy.

SUPPLIED: Scored tablets (three strengths), syrup and parenteral. Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

Lederle

LEDERLE LABORATORIES
A Division of
American Cyanamid Company
Pearl River, New York

RELIEVE THE COLD SUPPRESS THE COUGH WITH NEW

'EMPRAZIL-C'

TABLETS

ANTITUSSIVE ▪ DECONGESTANT ▪ ANALGESIC

Each tablet contains:

Codeine Phosphate*	15 mg.
'Sudafed'® brand Pseudoephedrine Hydrochloride	20 mg.
'Perazil'® brand Chlorcyclizine Hydrochloride	15 mg.
Acetophenetidin	150 mg.
Aspirin (Acetylsalicylic Acid)	200 mg.
Caffeine	30 mg.

*Warning—may be habit forming.

Complete literature available on request.

Also available without codeine as

'EMPRAZIL'®

TABLETS



BURROUGHS WELLCOME & CO. (U.S.A.) INC., TUCKAHOE, N.Y.

scratching helps...

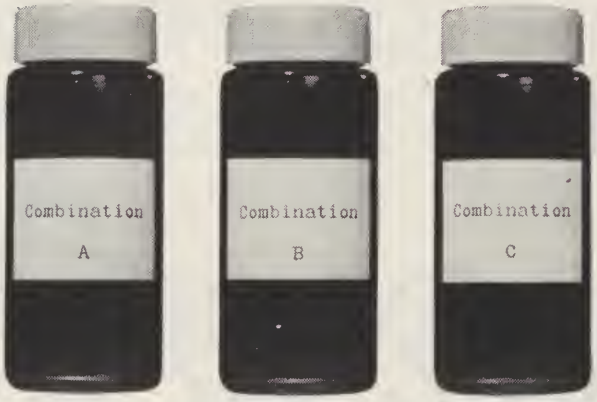


but Calmitol stops itching fast!

For every kind of pruritus—for adults or children—safe, fast-acting CALMITOL Ointment soothes itching on contact, helps prevent secondary trauma caused by scratching. And low-cost, conservative CALMITOL is non-sensitizing. CALMITOL Ointment is available at all pharmacies in 1½ oz. tubes and 1 lb. jars. For more stubborn pruritus, CALMITOL Liquid in bottles of two fluidounces.
THOS. LEEMING & CO., INC., New York 17

CALMITOL®

for anything that itches



These leading antihypertensive combinations are practically all alike.



This one is different...

because Ser-Ap-Es offers a unique benefit which makes blood pressure control more certain: the central and peripheral antihypertensive actions of Apresoline. By adding Apresoline to the regimens of their patients, Dupler *et al*[1] succeeded in bringing blood pressure down after rauwolfia-diuretic therapy failed. Using Ser-Ap-Es, Hobbs[2] reduced average blood pressure from 175/100 mm. Hg to 148/85 mm. Hg in 74 hypertensive patients. Side effects? Rarely a problem with Ser-Ap-Es because effective dosage is low.

SUPPLIED: SER-AP-ES Tablets, each containing 0.1 mg. SERPASIL® (reserpine CIBA), 25 mg. APRESOLINE® hydrochloride (hydralazine hydrochloride CIBA), and 15 mg. ESIDRIX® (hydrochlorothiazide CIBA). For complete information about Ser-Ap-Es (including dosage, cautions, and side effects), see current Physicians' Desk Reference or write CIBA.

1. Dupler, D.A., Greenwood, R.J., and Connell, J.T.: J.A.M.A. 174:123 (Sept. 10) 1960.
2. Hobbs, L.F.: To be published. 2/3026MB

CIBA
SUMMIT, N. J.

NEWSLETTER

MISSISSIPPI STATE MEDICAL ASSOCIATION
JACKSON, MISSISSIPPI

November 1962

Dear Doctor:

Six hours before it would have become law without his signature, JFK signed the Keogh bill into Public Law 87-792. Had Congress adjourned before 10 day limit, measure would have certainly gotten "pocket veto" treatment at White House. Live veto would have been beaten because bill passed Senate 70-to-8 and 361-to-0 in House.

> Self-employed may contribute $2,500 or 10 per cent of income to retirement plan, excluding one-half from income taxes. Benefits may be drawn at age 59 1/2 and must begin before 70 1/2. MSMA program will be announced before law becomes effective January 1, 1963.

New postal rates usher in the five cent letter, four cent post card, and eight cent air mail on January 7, 1963. Irony is that first class mail was paying its own way and that increased revenues only partially cover postal workers pay raises, creating a new deficit to replace old one. Hike will cost physicians up to $50 per year on office mail.

MSMA's 1963 Directory of Physicians has gone to press and will be mailed to all members within the month. Bigger than ever, new edition lists over 1,700 doctors, contains 110 alphabetical and county sections, and is over 100 pages. No cost to members, $3 postpaid to all others.

Nearly everybody likes first class air travel luxury but more are taking a second look at the price tag. Recognizing that the professional and business passengers are bread-and-butter traffic, TWA has initiated "Briefcase Commuter Service" of almost-first class comfort at thrifty coach fares. Seating is two and three across and only extra charge is for the tipplers.

Newest film in medical career fields is "Katharine Stewart, R.T," the story of an x-ray technician. The narrative follows the student from the day she enters training throughout course. Made by Ansco at Philadelphia General Hospital, film is approved by American College of Radiology. X-ray suppliers can arrange loan for local showings.

Sincerely,

Rowland B. Kennedy
Executive Secretary

AMA-ERF

Give to
medical education
through AMA-ERF

DATELINE - MEDICAL AMERICA

Teen Years Can Be Pre-Alcoholic, Says AMA

Chicago - Parents, educators, and youth leaders have been warned by AMA that the teen years can be pre-alcoholic. Recent paper, "How Teens Set the Stage for Alcoholism," available on request, declares that one out of 15 teenagers may become alcoholics unless "there is broadening of our educational program, greater action, and more understanding of the subject of alcoholism." Authors are Block and Hein and copies are free to physicians from AMA's Department of Health Education.

Leaded Gasoline Is Viewed As Harmless To Health

Cincinnati - A top air pollution authority says that leaded gasoline poses no threat to the public health. Kettering Laboratory director Robert A. Kehoe reports that, after 35 years of investigation, lead atmospheric content in major American cities hasn't increased appreciably despite increase in fuel use. Urbanites in areas of heavy auto traffic repeat patterns of "normal" findings among those in non-urban areas.

New Drug Controls Signed By President

Washington - The seven point Drug Control Act was quickly approved by the President after 347-to-0 passage by House. Congress followed up by appropriating $1.5 million for implementation. New law requires proof of efficacy and safety, broader factory inspection, summary of side effects in ads, suspension of drugs suspected of being dangerous, consent of patients for clinical trials unless not in the interest of the patient, certification of all antibiotics for human use, and animal tests before clinical investigations.

AMA-ERF Funds Make High Impact

Chicago - More than 3,100 medical students, interns, and residents have received AMA-ERF-underwritten loans for the current year. Median loan amount is $1,125 for students and $1,315 for hospital trainees. Repayment begins five months after all training ends and interest is nominal. Of all loan recipients, 73 per cent are married and 98 per cent are male. Successful campaign in 1962 could release an estimated 1,500 additional loans next year.

U.S. Supreme Court To Rule On Pelican Cultists

Baton Rouge - The five year old suit, La. Board of Medical Examiners v. England et al, will be reviewed by the U.S. Supreme Court. In 1957, 100 chiropractors sued to test constitutionality of state's medical practice act which bars licensure of cultists. Spine punchers have so far lost in trial and appellate hearings. Court action is separate from effort to gain licensure law in legislature, also bootless to date.

what your patients need to know about Aspirin

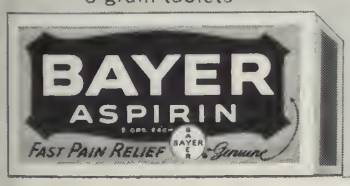


As you know, the confidence your patients place in a certain treatment or drug often helps to reinforce the relief they get from it. That's why it's often a good idea to explain the reasons for your recommendations, even in the simplest cases.

For example, aspirin. You probably recommend it more than any other drug, as an analgesic, as an antipyretic, as an aid to sleep when restlessness is caused by minor discomforts. Certainly aspirin is the most versatile and one of the most effective drugs in the arsenal of medicine.

But aspirin is such a common and such a safe drug that most laymen vastly underrate it. To use it with the utmost confidence, they need to know more about it. So next time, take a minute or two to explain what a uniquely valuable drug aspirin really is. You know it; your patients will be reassured to know it, too.

5-grain tablets



1¼-grain tablets



For professional samples,
write The Bayer Company,
1450 Broadway,
New York 18, N. Y.



TRIPLE SULFA THERAPY is safe at levels of pH 5.5 or lower where the possibility of crystalluria would be greatest.

TRI-AZO-MUL
TRI-AZO-TAB

TRI-AZO-MUL

Each 100 cc contains:

Sulfadiazine ..... 3.381 gm. (Microcrystalline)
Sulfamerazine ..... 3.381 gm. (Microcrystalline)
Sulfamethazine ..... 3.381 gm. (Microcrystalline)

In a palatable, stable emulsion pleasantly flavored with True Raspberry Flavor. Each average teaspoonful (80 min.) represents .5 gm. (7.7 grs.) of three combined sulfa drugs in suspension. Supplied in pint bottles only.

CONTRAINDICATIONS: Sulfonamides are potent drugs, and may cause toxic reactions. Sulfonamides, therefore, should be given only under constant supervision of a Physician.

TRI-AZO-TAB

Each tablet represents:

Sulfadiazine ....0.166 gm. (2.57 gr.)
Sulfamerazine ..0.166 gm. (2.57 gr.)
Sulfamethazine .0.166 gm. (2.57 gr.)

Available in White or Pink colored tablets in bottles of 100, 500 or 1,000.

TRI-AZO-MUL (citrated) offers the same formula as TRI-AZO-MUL (plain) with sodium citrate (17.5 gm.).

First Texas
Pharmaceuticals, Inc.
DALLAS • ATLANTA

Another Established Need Product . . . .

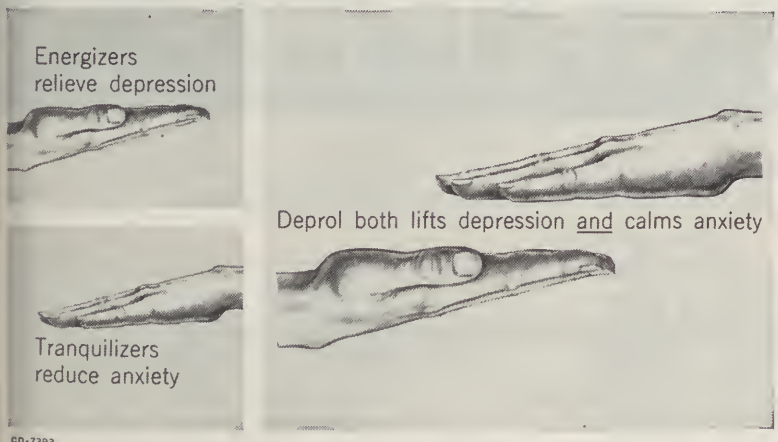
Serving the physician's needs since 1901

LIFTS DEPRESSION ...AS IT CALMS ANXIETY



"I feel like my old self again!" Balanced Deprol therapy has helped relieve her insomnia and fatigue – her normal energy, drive and interest have returned.

Brightens mood...relaxes tension



CD-7393

Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this may be increased gradually up to 3 tablets q.i.d. With establishment of relief, the dose may be reduced gradually to maintenance levels.

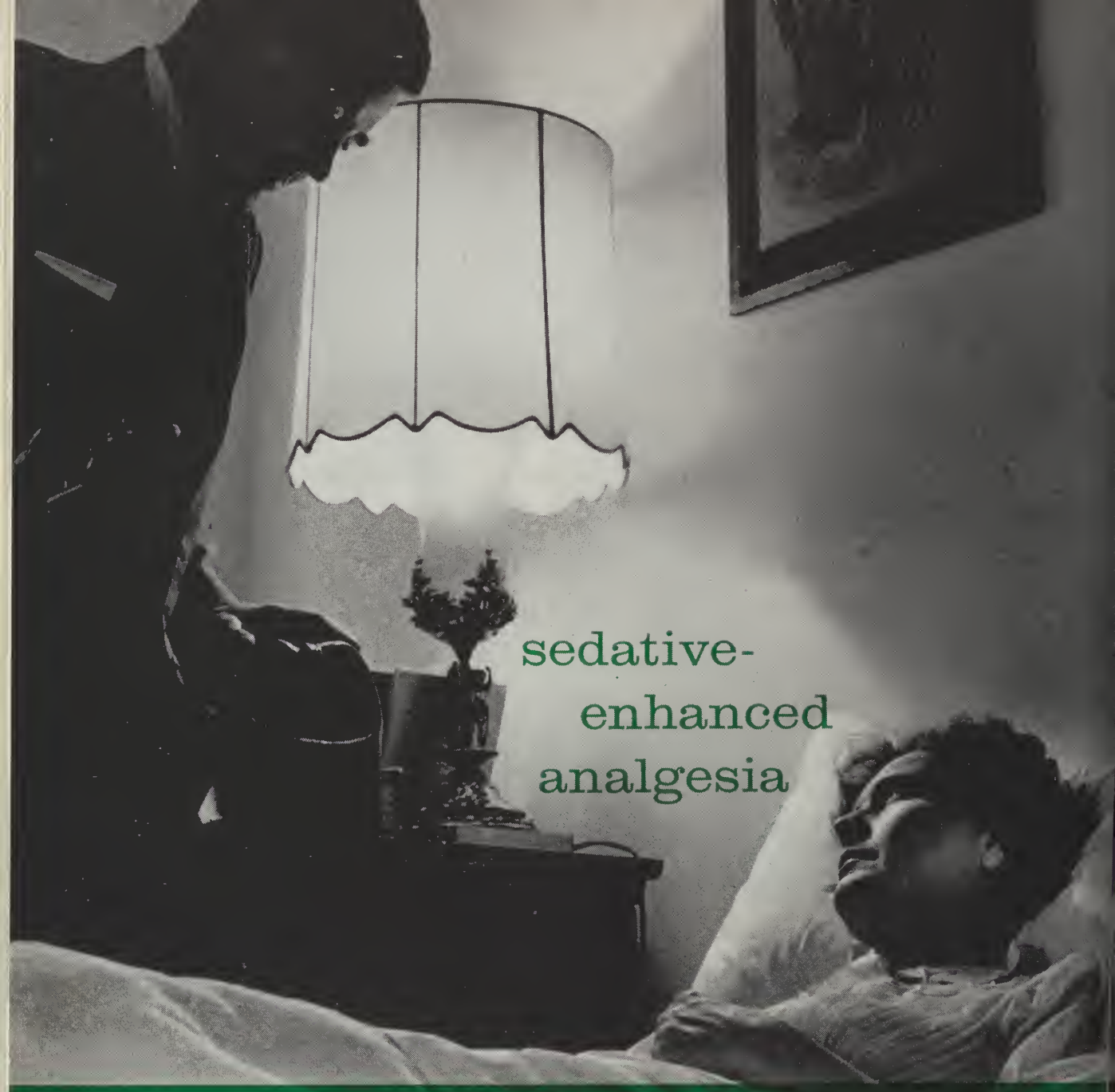
Composition: 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl) and 400 mg. meprobamate.

Supplied: Bottles of 50 light-pink, scored tablets.

Write for literature and samples.

Deprol®

WALLACE LABORATORIES
Cranbury, N. J.



for more satisfactory relief of anxiety-aggravated pain

PHENAPHEN®

- More satisfactory than "the usual analgesic compounds" for relieving pain and anxiety.[1]
- More effective than a standard A.P.C. preparation for relief of moderate to severe pain.[2]

Each PHENAPHEN *capsule contains:*

Acetylsalicylic acid (2½ gr.)	162 mg.
Phenacetin (3 gr.)	194 mg.
Phenobarbital (¼ gr.)	16.2 mg.
Hyoscyamine sulfate	0.031 mg.

Also available:

PHENAPHEN with CODEINE PHOSPHATE
¼ GR. (16.2 mg.) Phenaphen No. 2

PHENAPHEN with CODEINE PHOSPHATE
½ GR. (32.4 mg.) Phenaphen No. 3

PHENAPHEN with CODEINE PHOSPHATE
1 GR. (64.8 mg.) Phenaphen No. 4

Bottles of 100 and 500 capsules.

1. Meyers, G. B.: Ind. Med. & Surg. 26:3, 1957. 2. Murray, R. J.: N. Y. St. J. Med. 53:1867, 1953.

A. H. ROBINS CO., INC., RICHMOND 20, VIRGINIA

Making today's medicines with integrity... seeking tomorrow's with persistence.

Robins



Now...the finest health care protection in the world for our "Senior" Citizens

The welfare of our older people has always been a major concern of Blue Cross-Blue Shield. In addition to a quality basic protection, Blue Cross-Blue Shield now provides expanded hospital and medical coverage to persons age 65 or over. There is now a choice of room and board allowances of $8, $10 and $12 per day. Blue Shield pays up to $200 for surgical procedures in or out of the hospital. (Up to $300 for surgical procedures is available with the $12 room selection.) With the Master Health Endorsement, major medical benefits up to $5000 are available for long-term or extremely high-cost illnesses. The Cancer Endorsement provides up to $2500 in special benefits for cancer and eleven other dread diseases. When it comes to health care benefits for our older citizens, nothing can match the priceless protection of Blue Cross-Blue Shield.

NOW PROTECTING MORE THAN 40,000
MISSISSIPPIANS AGE 65 AND OVER.

MISSISSIPPI
BLUE CROSS
BLUE SHIELD

MISSISSIPPI HOSPITAL & MEDICAL SERVICE / 530 EAST WOODROW WILSON AVE. / JACKSON, MISS. / TELEPHONE EM 6-1422



from boutonneuse fever in Afric

Whether treating boutonneuse fever, bronchopneumonia, or a host of othe infections, physicians throughout the world continue to rely on the effectiv ness, relative safety, and exceptional toleration of Terramycin in broad-spe trum antibiotic therapy. This continuing confidence is based upon thousan of published clinical reports and successful experience in millions of patient

The next infection you see will more than likely be"Terra-responsive



IN BRIEF The dependability of Terramycin in daily practice is based upon its broad range of antimicrobial effectiveness, excellent toleration, and low toxicity. As with other broad-spectrum antibiotics, overgrowth of nonsusceptible organisms may develop. If this occurs, discontinue the medication and institute appropriate specific therapy as indicated by susceptibility testing. Glossitis and allergic reactions to Terramycin are rare. For complete information on Terramycin dosage, administration, and precautions, consult package insert before using.

More detailed professional information available on request.

Boutonneuse fever is a tick-borne, acute, febrile disease often affecting children. The bite site becomes a small, necrotic ulcer. A striking macular or maculopapular eruption develops on the trunk, palms and soles. Onset is sudden, with chills, high fever, violent headache and lassitude. The high temperature—up to 103° F.—characteristic of both boutonneuse fever and bronchopneumonia, drops rapidly following initiation of Terramycin therapy.

bronchopneumonia in Mississippi

BRAND OF OXYTETRACYCLINE

Terramycin® capsules • syrup • pediatric drops
intramuscular solution • intravenous

so available with nystatin as TERRASTATIN® (capsules and oral suspension)



Put your low-back patient back on the payroll

Soma relieves stiffness —stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, *fast!*

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

This was demonstrated by Kestler in a controlled study: average time for full recovery was 11.5 days with Soma, 41 days without Soma. (J.A.M.A. 172:2039, April 30, 1960.)

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets.
USUAL DOSAGE: 1 TABLET Q.I.D.

The muscle relaxant with an independent pain-relieving acti

SOMA®

(carisoprodol, Wallace)

Wallace Laboratories, Cranbury, New Jersey



How do the lemons get in the Vi-Daylin?

Perhaps this should be cleared up once and for all. There are *no* lemons in Vi-Daylin. If you've ever tasted Vi-Daylin, this might surprise you. Certainly, it would surprise the youngsters. To most of them, Vi-Daylin is liquid lemon candy, and that's *that*. But if it's deception, it's sensible deception. You never have to badger the kids into taking their vitamins. Nice to know, too, that this matchless matching of candy essence and color elegance can be found in all the forms and formulas of Vi-Daylin.

VI-DAYLIN—Vitamins A, D, B_1, B_2, B_6, B_{12}, C, and Nicotinamide, Abbott; VIDAYLIN-M—Homogenized Mixture of Vitamins with Minerals, Abbott; VI-DAYLIN-T—High Potency Multivitamins, Abbott.

Remember, there are *three* liquid formulas: Vi-Daylin, ViDaylin-M® (with minerals), and ViDaylin-T® (therapeutic). And if patients get a little owlly and won't touch *anything* in a spoon, you can give them the new Chewable (please see back of this page).

Each delicious, 5-cc. teaspoonful of Vi-Daylin supplies the following proportions of the Minimum Daily Requirements of:

		MDR (Children)	MDR (Infants)
Vitamin A	0.9 mg. (3000 units)	1	2
Vitamin D	10 mcg. (400 units)	1	1
Thiamine HCl (B_1)	1.5 mg.	2	6
Riboflavin (B_2)	1.2 mg.	1⅓	2
Ascorbic Acid (C)	50 mg.	2½	5
Nicotinamide	10 mg.	1⅓	2

Also supplies cyanocobalamin (B_{12}) 3 mcg. and pyridoxine Hydrochloride 1 mg.

209035A

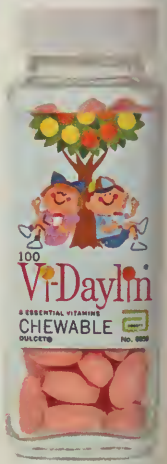
Abbott Laboratories
North Chicago, Illinois

Gentlemen,

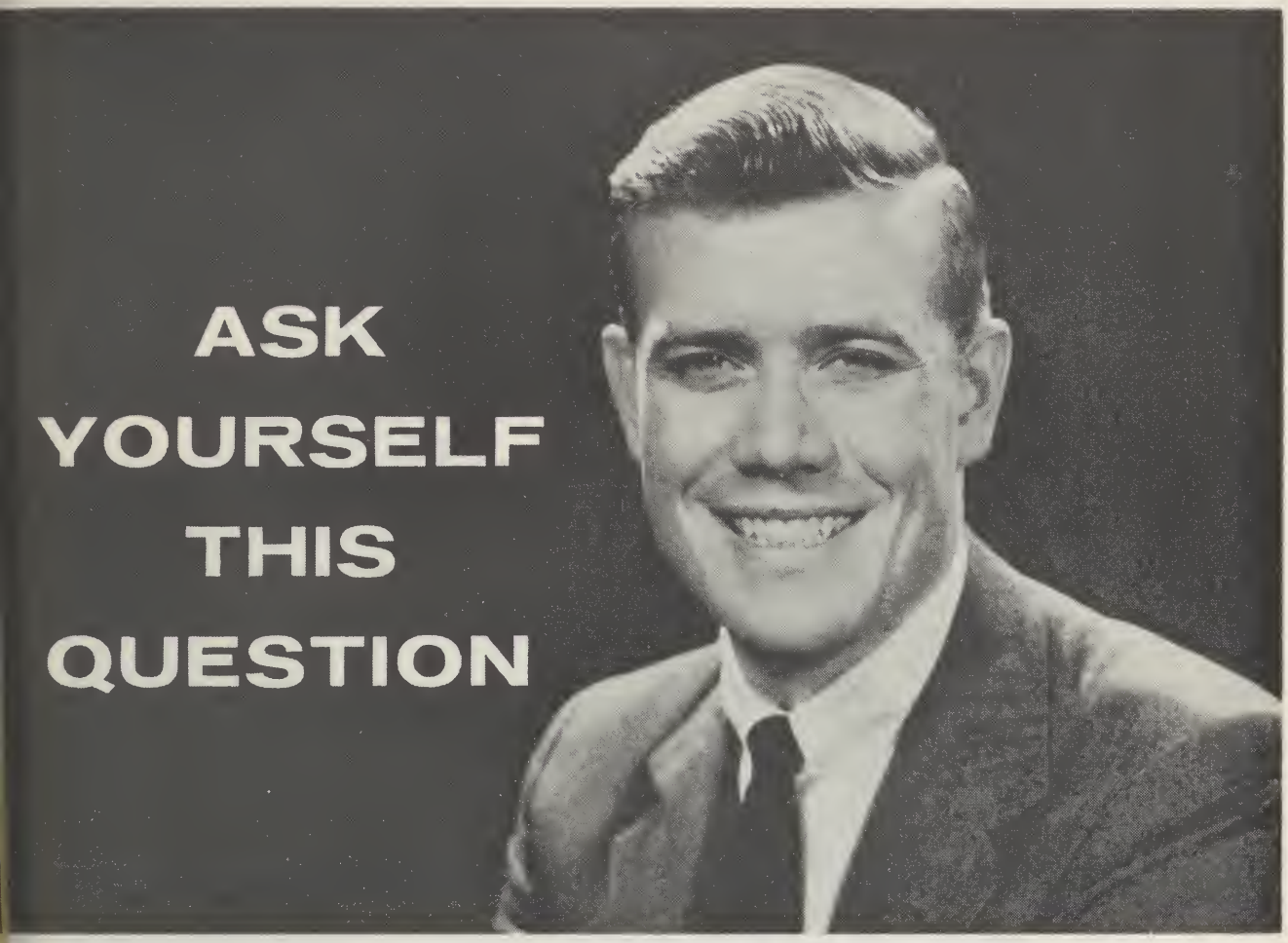
My family enjoys your chewable vitimans. It seems like we can not get enough of your vitimans. My sister enjoys your vitimans so much that she ask for more but cannot have no more. I like them because my mother does not have to worry about scolding us when taking it. Its good because you don't have no worries about something falling on the floor. If you kept on making these vitimans all the worlds children would be happy again. Now I would like to know whether I may have any information on the Middle West. You see my class and I are studying it. So if the information can be given I thank you very much.

"...all the worlds children would be happy again."

(an unsolicited testimonial from an actual letter)



ABBOTT



"How can I set a savings goal
-and guarantee I'll get there?"

First Federal of Jackson provides the answer in Guaranteed Dollars – a plan that will bring a smile to your face. The secret is systematic monthly saving, coupled with insurance on your life. Saving builds your cash reserve; life insurance assures your savings goal if death should occur. As savings increase, life insurance decreases, thus giving your plan a constant value at all times. There is nothing to compare. You save, your money earns and you have the protection of life insurance to assure your savings goal. Withdrawals may be made at any time, providing an extra reserve fund for emergencies if necessary.

Guaranteed Dollars Plans available in any amount for 10, 15, 20 years or longer. Call or write today for further details, giving your age, amount you want to save, and length of time desired.

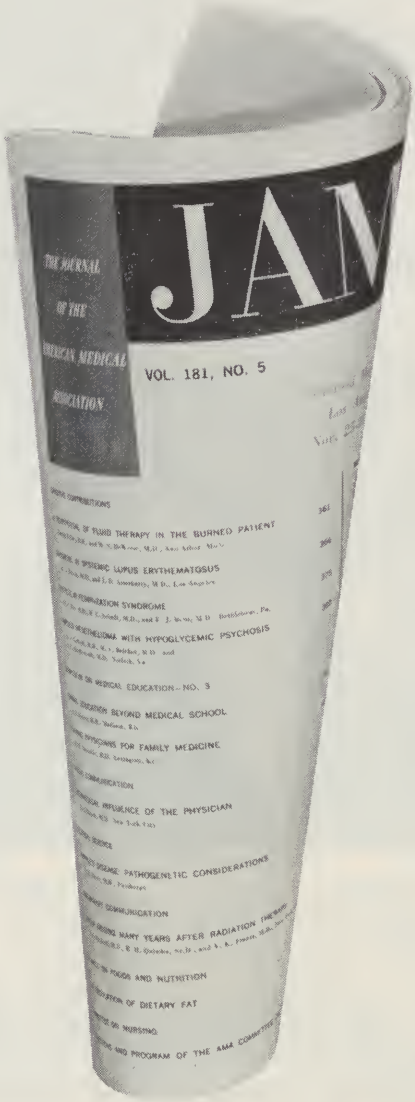
Guaranteed Dollars
SAVINGS PLAN

If you're 35 years old
Save $35.78 monthly for $10,000
20-year plan
(Progress of plan as each year passes)

Attained Age	As Savings Increase	Insurance Decreases	Total Value of Plan
36	373.48	12,996.00	13,369.48
37	762.05	12,312.00	13,074.05
38	1,166.32	11,628.00	12,794.32
39	1,586.92	10,944.00	12,530.92
40	2,024.52	10,260.00	12,284.52
41	2,479.79	9,576.00	12,055.79
42	2,953.46	8,892.00	11,845.46
43	3,446.26	8,208.00	11,654.26
44	3,958.97	7,524.00	11,482.97
45	4,492.39	6,840.00	11,332.39
46	5,047.37	6,156.00	11,203.37
47	5,624.76	5,472.00	11,096.76
48	6,225.49	4,788.00	11,013.49
49	6,850.48	4,104.00	10,954.48
50	7,500.72	3,420.00	10,920.72
51	8,177.23	2,736.00	10,913.23
52	8,881.08	2,052.00	10,933.08
53	9,613.35	1,368.00	10,981.35
54	10,375.22	684.00	11,059.22
55	11,167.85	.00	11,167.85

You Save $8,650.95 – You Earn $2,516.90

FIRST FEDERAL
SAVINGS AND LOAN ASSOCIATION
CAPITOL AT STATE
JACKSON, MISSISSIPPI





Because you are aware of the AMA statement on fat in the diet...

"Increasing the ratio of poly-unsaturated fat to saturated fat in the diet is the preferred method for treating the 'usual' hypercholesteremia."

From the Aug. 4, 1962 issue of The Journal of the American Medical Association.

Of all leading salad and cooking oils Safflower Oil has the highest ratio of poly-unsaturated fat to saturated fat. Safflower Oil is higher in recommended poly-unsaturates—lower in saturated fat than any other readily available oil or shortening.

When an adjustment in dietary ratio of saturated fat is indicated, Saff-o-life

you should be aware of this new, poly-unsaturated oil for cooking

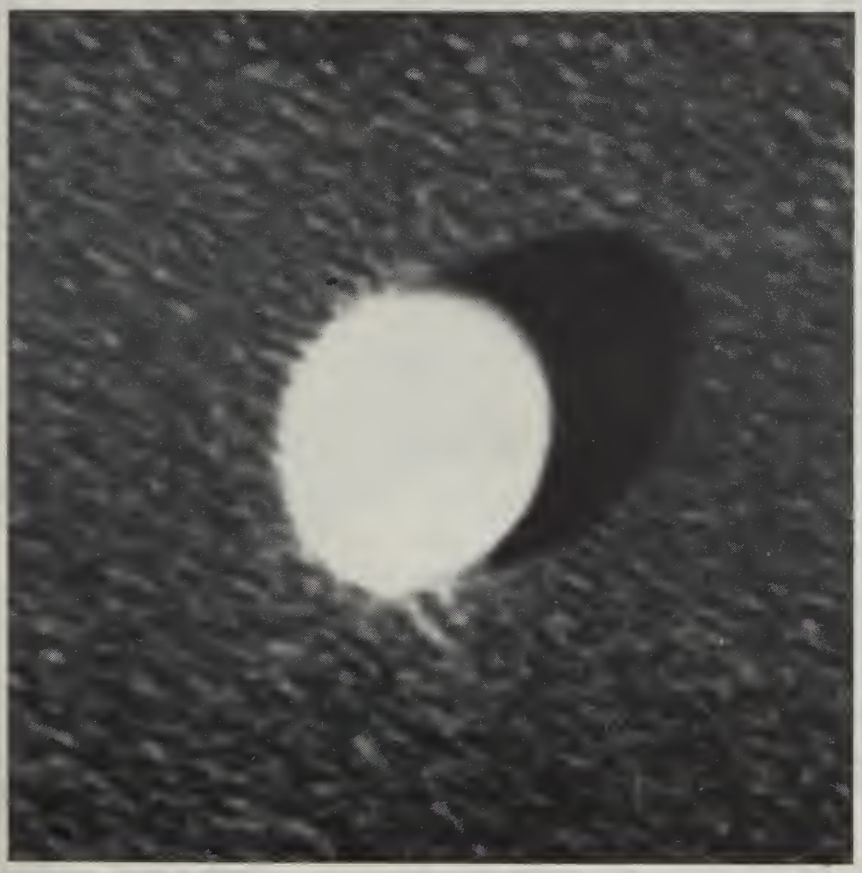
Safflower Oil makes the substitution easy, appetizing, inexpensive.

Physicians who wish recipes using Saff-o-life Safflower Oil are invited to write directly to: Professional Services Director, General Mills, Inc., Department 120, 9200 Wayzata Blvd., Minneapolis 26, Minnesota.

RATIO OF LINOLEATES* TO SATURATES *poly-unsaturated fats

SAFFLOWER OIL	9.0 to 1.0
CORN OIL	5.3 to 1.0
SOYBEAN OIL	3.5 to 1.0
COTTONSEED OIL	2.0 to 1.0
PEANUT OIL	1.6 to 1.0

A product of General Mills—Your assurance of quality and purity.





Goliath *David*

Against the formidable and ubiquitous Staphylococcus aureus, PANALBA* gives you a powerful weapon. PANALBA is a selective combination of novobiocin (for its unique effectiveness against staph) and tetracycline (for its breadth of coverage). From the outset, your treatment has broader antibacterial coverage resulting from the simultaneous administration of two antibiotics that complement each other. They were carefully chosen for this purpose.

That is why PANALBA offers excellent chances for therapeutic success.

Reminder advertisement. Please see package insert for detailed product information.

Upjohn

THE UPJOHN COMPANY
KALAMAZOO, MICHIGAN

*TRADEMARK, REG. U.S. PAT. OFF.

COPYRIGHT 1962, THE UPJOHN COMPANY



WITH YOUR ENCOURAGEMENT

AND

DEXEDRINE®

brand of dextro amphetamine

SPANSULE®

brand of sustained release capsules

she's losing weight

'Dexedrine' *Spansule* capsules not only control appetite all day long, but at the same time encourage normal activity. This is particularly important because overweight patients are often inactive. In such patients 'Dexedrine' overcomes lethargy, helps renew their interest in doing things—not just eating.

PRESCRIBING INFORMATION

INDICATIONS AND DOSAGE: For the following indications, the recommended daily dosage is one or two 'Dexedrine' *Spansule* capsules, usually taken in the morning: control of appetite in weight reduction; depressive states; alcoholism. In narcolepsy, the recommended daily dosage is up to 50 mg. of 'Dexedrine' by 'Spansule' capsule on arising.

SIDE EFFECTS: Insomnia, excitability and increased motor activity are infrequent and ordinarily mild.

CAUTIONS: Should be used with caution in patients hypersensitive to sympathomimetic compounds; in cases of coronary or cardiovascular disease; and in the presence of severe hypertension.

CONTRAINDICATIONS: Hyperexcitability; agitated pre-psychotic states.

SUPPLIED: 5 mg., 10 mg. and 15 mg., in bottles of 30. (Each capsule contains dextro amphetamine sulfate, 5 mg., 10 mg., or 15 mg.)

Prescribing information adopted January 1961.

Smith Kline & French SK&F *Laboratories*





Flavor you never thought you'd get from any filter cigarette!

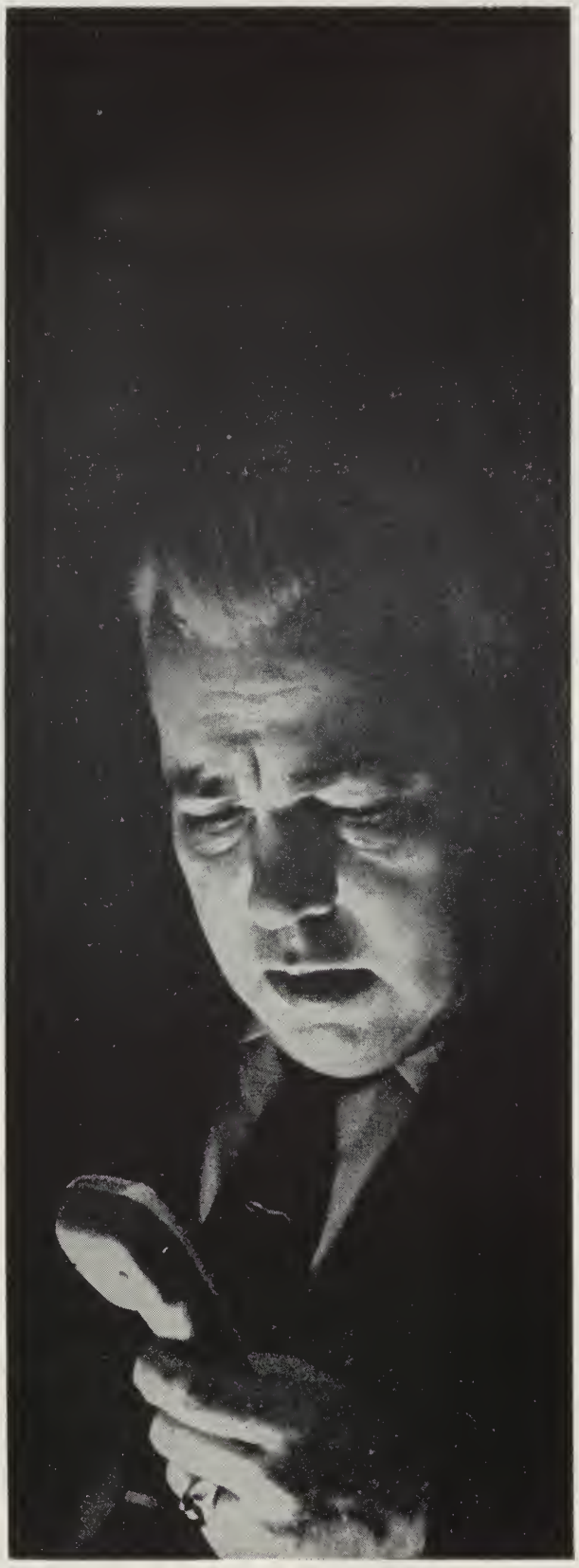
If you're hungry for flavor, Tareyton's got plenty—and it's *plenty good!* Quality tobaccos at their peak go *into* Tareyton. Then the famous Dual Filter *brings out* the best taste of these choice tobaccos. Try a pack of Dual Filter Tareytons—you'll see!

Dual Filter makes the difference



Product of *The American Tobacco Company*—
"Tobacco is our middle name" © A. T. Co.

DUAL FILTER *Tareyton*



Day and night– less wheezing, coughing, labored respiration in chronic bronchitis and emphysema

New Isuprel Compound Elixir is a balanced expectorant bronchodilator. It contains potassium iodide to promote expectoration and relieve dry cough. Its three bronchodilators, Isuprel, ephedrine, and theophylline, keep bronchi continuously dilated. Luminal is included to negate possible side effect from adrenergic medication and to provide very mild sedation for the patient.

New Isuprel Compound Elixir alleviates symptoms...prolongs relief in chronic bronchitis and emphysema.

Each good-tasting vanilla-flavored tablespoon (15 cc.) contains:

Isuprel® (brand of isoproterenol) HCl	2.5 mg.
Ephedrine sulfate	12 mg.
Theophylline	45 mg.
Potassium iodide	150 mg.
Luminal® (brand of phenobarbital)	6 mg.
Alcohol	19%

Adult Dose: 2 tablespoons 3 or 4 times daily.

How Supplied: Isuprel Compound Elixir is supplied in bottles of 16 fl. oz.

Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.

New ISUPREL® compound ELIXIR

Winthrop LABORATORIES
New York 18, N.Y.

ISUPREL AND LUMINAL, TRADEMARKS REG. U. S. PAT. OFF.



A variety of diet dishes to choose from. Ham 'n egg rolls, eggplant casserole, garden beans, oyster stew, gelatine and—beer!

How to help your patient stick to a low-purine diet

The acceptance of any diet depends on its appetite appeal. And this low-purine diet is unusually appetizing! Ham rolls stuffed with scrambled eggs or chilled egg salad make a delicious entree, as does a casserole of eggplant and tomato layered alternately with cottage cheese. A dash of lemon juice flavors fresh vegetables like string beans and beets. Fresh skim milk mixed with dry skim milk powder add a "creamy" taste to oyster stew. Tuna-burgers go nicely with noodles. Fruits and gelatins make excellent, easy desserts, while corn and rice flakes brighten breakfasts.

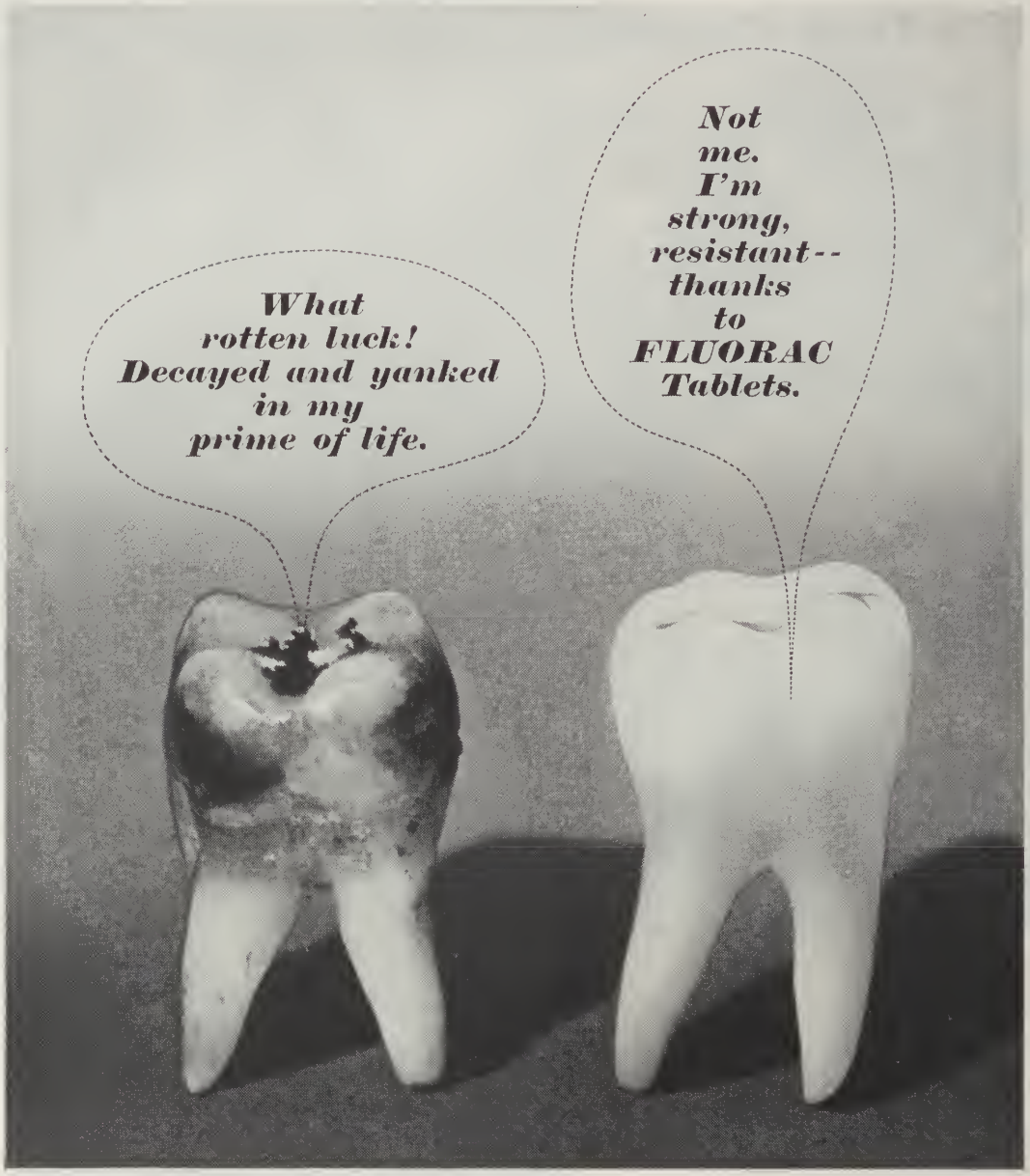


And a glass of beer can add zest to your patient's diet

104 calories,
17 mg. Sodium / 8 oz. glass
(Average of American Beers)

United States Brewers Association, Inc.

For reprints of this and 11 other diet menus, write us at 535 Fifth Avenue, N. Y. 17, N. Y.



FLUORAC

Yes, new chewable FLUORAC Tablets provide caries-preventing fluoride in safe daily dosage . . . plus vitamins that contribute to dental health. Deliciously orange-flavored FLUORAC Tablets are readily taken by: older children (chewed, dissolved in mouth or swallowed); pregnant women (from fourth month on to protect fetus); infants (crushed and sprinkled on food). Economical bottles of 100 FLUORAC Tablets on prescription only. Not to be used where fluoride content of water is more than 1 ppm and daily ingestion exceeds 0.5 mg. for age 3 and over, and 0.3 mg. for those under 3.

Each FLUORAC TABLET provides: FLUORIDE (as sodium fluoride) 0.5 mg. ■ PYRIDOXINE HCl (B_6) 2 mg. ■ ASCORBIC ACID (C) 75 mg. ■ VITAMIN A 5,000 U.S.P. Units ■ VITAMIN D 500 U.S.P. Units. ■ Dosage: 1 tablet daily.

SAMPLES AND LITERATURE FROM . . .

U. S. VITAMIN & PHARMACEUTICAL CORP.

ARLINGTON-FUNK LABORATORIES, DIVISION • 800 SECOND AVENUE, NEW YORK 17, N. Y.

Schering



relieve U.R.I. distress rapidly

- relieve sneezing, runny nose
- ease aches and pains
- lift depressed feelings
- reduce fever, chills

For complete details, consult latest Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Bloomfield, N. J.

Rx CORIFORTE®

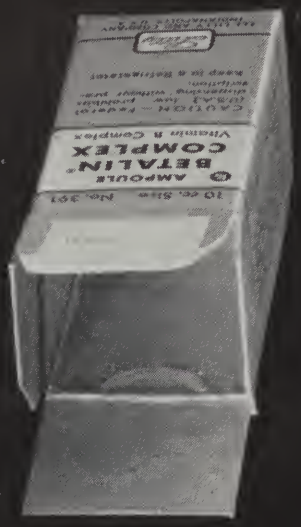
(Brand of Analgesic-Antihistaminic-Antipyretic Compound)

capsules

Each CORIFORTE Capsule contains:

CHLOR-TRIMETON® (brand of chlorpheniramine maleate)	4 mg.
salicylamide	0.19 Gm.
phenacetin	0.13 Gm.
caffeine	30 mg.
methamphetamine hydrochloride	1.25 mg.
ascorbic acid	50 mg.

available on prescription only



the case of the missing ampoule

People aren't perfect—neither are machines. Both can slip up occasionally. Take an ampoule in a paper carton for example. How can we be absolutely sure that the ampoule is really inside? ■ Here's how: A machine folds the carton, inserts the ampoule, seals the carton, and then places it on the finishing line. Further down the line, the detective waits—a jet of air sweepin across the finishing line just strong enough t blow an empty carton off the belt. Properly fille cartons proceed for further inspection and pacl aging. ■ Perhaps a small point, but it is anoth in a long series of control measures designe to deliver quality pharmaceuticals every tim

Eli Lilly and Company • Indianapolis 6, Indiana, U.S.A.

Lilly

290326

JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION
November, 1962, Vol. III, No. 11

ORIGINAL PAPERS

Urinary Fistulae

JOHN J. MURPHY, M.D.
Philadelphia, Pennsylvania

Primary etiological factors in the development of urinary fistulae are pelvic surgery and irradiation. Ill effects from these fistulae result from three conditions: (1) uncontrollable loss of large quantities of fluid, (2) local irritation due to chemical action of the urine and the maceration of tissues exposed to it, and (3) malfunction of the organ of origin and the organ or area of termination. The author discusses prevention, diagnosis, and principles of repair.

ABNORMAL COMMUNICATION between any portion of the urinary tract concerned with the transport and storage of urine and other parts of the body constitutes a urinary fistula. Theoretically, a fistula may originate any place from the collecting tubules of the renal pyramids to the urethral meatus. Certain areas are more prone to the development of fistulae than others. This discussion will deal with some of these and their etiology, prevention, and correction. One of the more rare fistulae and its management will also be described.

Urinary fistulae produce their ill effects because of three major factors. The first is the uncontrollable loss of large quantities of fluid. The second is local irritation due to chemical action of the urine and the maceration of tissues exposed to it. Third and perhaps most important is malfunction of the organ of origin and the organ or area of termination of the fistula.

I will not dwell upon the historical aspects of this problem, although it is a rich and rewarding research for any physician. It includes such sagas as that of Simon, who performed the first nephrectomy because of a ureterocutaneous fistula, and the trials and accomplishments of Marion Sims, who, through his relentless attack upon vesicovaginal fistulae, advanced the specialty of gynecology more than any single individual before or since his time.

It might be well to begin by discussing vesicovaginal fistula since this is the most commonly encountered type. In areas where competent obstetrical care is not available, prolonged labor is responsible for most instances of this most troublesome entity as our missionary surgeons to other countries can attest. The means of their prevention has been made apparent by the development of adequate obstetrical care in this and other countries. Here, another etiologic factor is more common, that is, surgery upon the pelvic organs. The urologic surgeon is not without blame in this regard since surgery upon the bladder neck and urethra in females, whether by the transurethral or retropubic route, may result in

From the Department of Surgery, Division of Urology, Hospital of the University of Pennsylvania, and Harrison Department of Surgical Research, Schools of Medicine, University of Pennsylvania.
Read before the Section on Obstetrics and Gynecology, 94th Annual Session, Mississippi State Medical Association, Jackson, May 7-10, 1962.

urethrovaginal or vesicovaginal fistulae unless performed with the greatest regard for the thin layer of tissue separating the vagina from the bladder and urethra. The use of large amounts of irradiation in the treatment of neoplasms of the genital system adds another group of problems of this



Figure 1. Cinefluorographic demonstration of urethrovaginal fistula.

type and some of these are among the most difficult encountered. The major causes of this type of fistula are surgery performed upon organs contained in the pelvis and irradiation therapy to organs in this area.

Prevention of these fistulae depends upon careful surgical technic and avoidance of excessive irradiation. A few of the more obvious safeguards are worthy of mention such as prophylactic ureteral catheterization prior to extensive dissection in the pelvis or in the known presence of large myomata or extensive pelvic inflammatory disease. Contrary to the opinion voiced by some physicians, the placement of the ureteral catheter within the ureter does not result in displacement of this structure from its normal anatomical course, and there can be no question about the value of a palpable catheter within the ureter surrounded by inflammatory tissue or neoplasm. Care in the dissection of the bladder base in pelvic or vaginal surgery is facilitated by the presence of an indwelling catheter. The introduction into the bladder of a small amount of colored solution such as methylene blue permits early recognition of inadvertent entrance into this viscus. Once recognized, proper management is simple and will prevent many fistulae. Inclusion of a portion of the bladder or ureter in surgical repair may result in late sloughing of tissue with formation of a fistula. In this instance, it is important to recognize the possibility of a combined vesicovaginal and ureterovaginal fistula, and this possibility should be always kept in mind.

Once suspected, demonstration of a fistula between the urinary tract and the vagina should be carefully sought by roentgenography and endoscopy so that proper surgical repair may be planned. The excretory urogram is essential, and although it has been said that the ureter involved in a fistula usually shows evidence of stasis, this is not uniformly true. We have encountered several instances in which the upper urinary tracts appear completely normal despite the presence of a fistula between the ureter and vagina. Cystography and retrograde ureterography, including the use of various oblique projections of the roentgen study, facilitate the detection of small connections between the ureter and the vagina as well as between the bladder and vagina.

Endoscopic examination of the urethra and bladder should be a part of every evaluation of a patient with a fistula. The general appearance, location, size, and relationship to other vital structures are best evaluated by this means, and this information is of inestimable value to the surgeon attempting the correction of the defect.

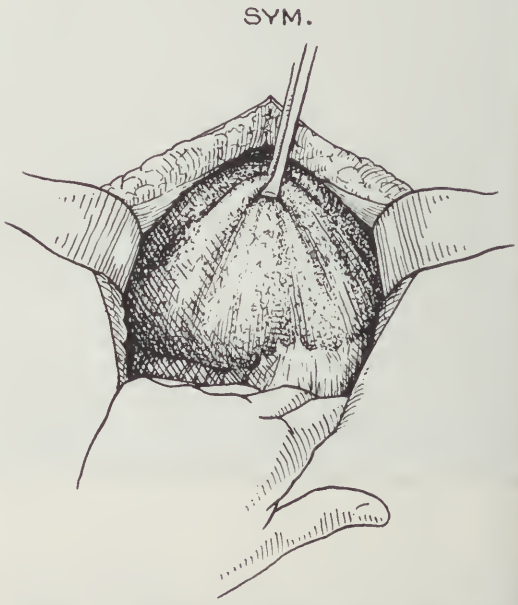


Figure 2. Exposure of the bladder for excision of vesicovaginal fistula.

A new addition to the roentgen armamentarium is the cinefluorographic voiding cystourethrogram which permits examination of the lower urinary tract in the act of voiding and the visualization and exact localization of fistulae in this area (Figure 1).

There is no doubt that the uncomplicated vesicovaginal fistula is best handled by the vaginal approach. Modification and improvement of the technics originally devised by Marion Sims have resulted in a high incidence of successful repair of this fistula by surgeons here and abroad. Details of technic become a matter of personal choice through experience. I recommend, most enthusiastically, your perusal of the excellent monograph by J. Chassar Moir[1] on this subject. Strict adherence to the principles of management and technic as described by this author will result in gratifying success with this procedure.

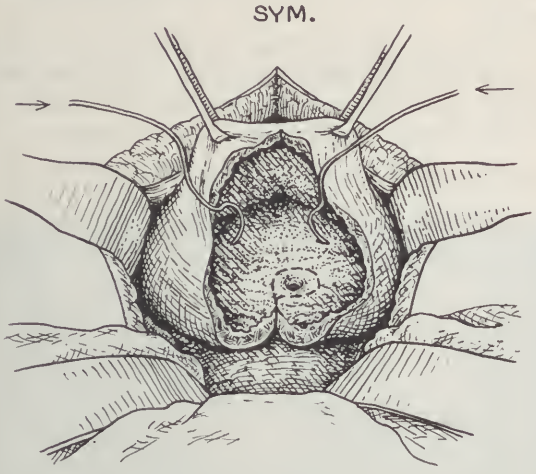


Figure 3. Incision of bladder and excision of fistula.

The complicated vesicovaginal fistula which has been operated upon a number of times or which has a great deal of inflammatory reaction in the tissues adjacent to the opening or which is due to irradiation changes in the tissue is an entirely different affair and one which demands special consideration. It is here that the trans-abdominal approach has its greatest value. I will briefly dwell upon its technic.

The bladder is exposed in the retropubic space, and the peritoneum dissected completely from it. Dissection of the perivesical tissues is carried down to the base so that both ureters are visualized and this dissection is carried laterally and anteriorly as though one were preparing the bladder for total removal (Figure 2). The bladder is opened near the dome and the incision carried down the posterior wall toward the opening of the fistula (Figure 3). A catheter is placed in each ureter to permit identification of these structures during their course through the bladder.

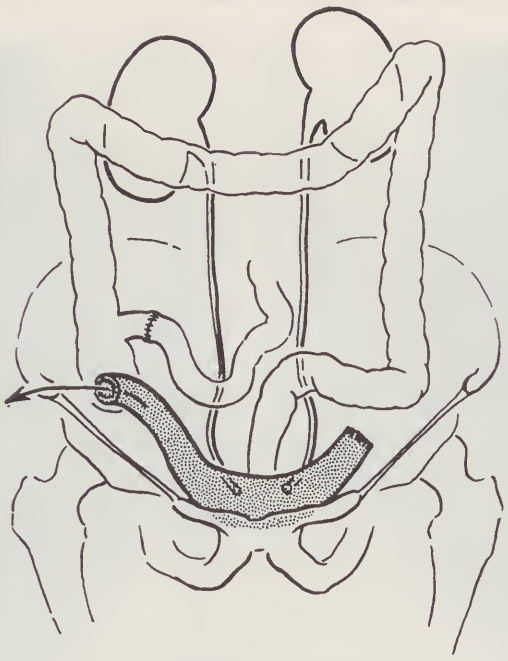


Figure 4. Diagram uretero-ileostomy.

Excision of the fistula is carried out under direct vision, excising as much as possible of the fibrosis about it. Separation of the vagina and bladder wall is then possible by means of blunt and sharp dissection. In difficult cases, especially when the bladder has contracted because of prolonged infection, the vaginal approach may be combined with this technic to facilitate dissection in this area.

The vagina is closed with interrupted sutures of fine absorbable catgut if this is done from above. If from below, nonabsorbable sutures may be used. The bladder is then mobilized as far as possible around this area, and the bladder wall sutured with interrupted sutures of fine plain catgut which do not penetrate the mucosa. Closure of the bladder wall is continued, using a continuous suture of fine plain catgut in the muscle and interrupted sutures of the same material in the perivesical tissues. A cystostomy tube is placed through a separate stab incision high in the dome, and this is brought out obliquely through a separate stab incision in the skin and fascia above the transverse skin incision. The use of a vaginal pack for 24 hours is advisable to diminish the likelihood of hematoma formation between the sutured layers.

Constant bladder drainage is important in the postoperative course. Many authors have advocated suction upon the suprapubic cystostomy



Figure 5. Preoperative urogram of patient with vesicovaginal and rectovaginal fistula.

while others advocate the prone position. From our studies on lower urinary tract physiology, we have learned that it is not important whether or not urine flows over the healing areas and, in fact, this is impossible to prevent by any method. The problem which arises has to do with intravesical pressure changes. The presence of the tube and the recent surgical trauma frequently lead to spasm of the bladder musculature. Unless the suprapubic cystostomy tube is functioning perfectly, these spasms result in great increases in intravesical pressure, and it is this force which disrupts the suture line or forces urine through it leading to failure of this surgical repair.

The answer to this problem comes in the form of the anticholinergic drugs. The most successful of these are given intravenously at intervals and in dosage levels sufficient to paralyze the detrusor muscle by acting upon the nerve endings of the parasympathetic nerves and their ganglia. Administration of such drugs as Murel and Banthine at four to six hour intervals for the first three to six days after surgery is the key to success in dealing with this situation. As the bladder heals, spasms become less frequent and this medication is less needed. The use of local adjuvants such as estrogenic hormones and suppositories containing antibacterial agents are left to the discretion of the surgeon.

The cystostomy tube is left in place for at least two full weeks after which it is clamped and the patient is allowed to void. Voiding cystourethrography is of value in this period, if available, but the clinical test suffices in most instances. Some patients have difficulty in voiding with the tube in place, and if all seems to be well after the tube has been clamped for 24 hours, it may be removed. The sinus closes quickly and spontaneously.

If a low ureterovaginal fistula exists in connection with or separate from a vesicovaginal fistula, the ureter may be dissected by placing a traction suture through the ureteral meatus, circumcising the mucosa around it and gently teas-

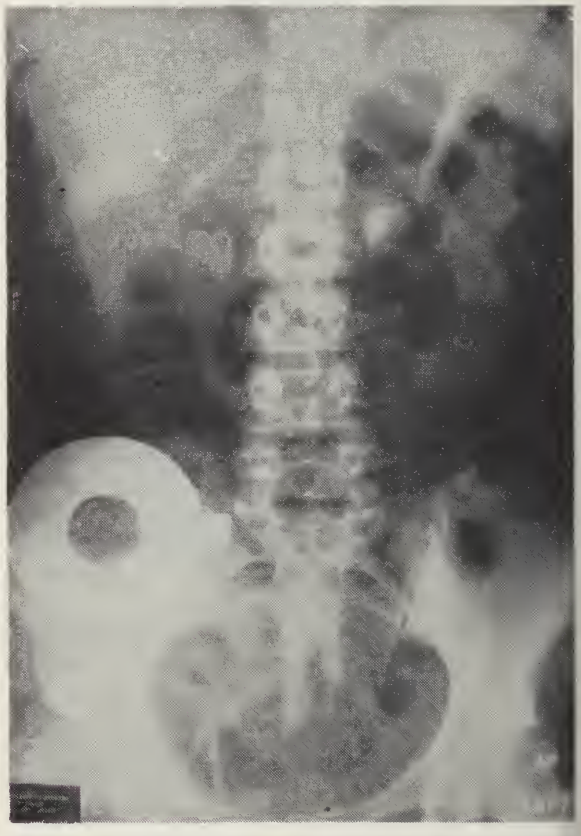


Figure 6. Urogram two years after diversion of urine and fecal stream.

Indication	No. Pts.	Follow-Up Period			Renal Status		
		< 1 yr.	1-3 yrs.	3-8 yrs.	imp.	unch.	worse
Pelvic Exenteration *	29	4	14	6	3	16	5
"Useless Bladder" (neurogenic or post-inflammatory)	26	5	6	15	12	12	2
Cystectomy **	13	-	7	6	-	11	1
Vesico-Vaginal Fistula **	9	1	1	7	4	3	1
Palliation (ca. bladder)	3	-	2	1	-	3	-
Totals	80	10	30	35	19	45	9

* 5 patients died in immediate post-op. period
** 1 patient died in immediate post-op. period

Figure 7. Total experience with uretero-ileostomy at Hospital of the University of Pennsylvania as of 1961.

ing it free from the surrounding tissues up to the point of the fistula. The fistula is then excised and the vagina closed. If there is much scarring in this area, it is preferable to advance the ureter, sacrificing the portion involved by the fistula and that portion of the ureter distal to it. The remaining ureter may be then advanced into the normal position in the bladder and sutured here by means of plain catgut sutures through the musculature and mucosa. An indwelling ureteral catheter during the latter maneuver is of extreme importance.

POSTIRRADIATION FISTULA

The effect of roentgen rays upon the tissues of the bladder and vagina are often beneficial, but at times catastrophic. The salvage rate in patients with cervical carcinoma treated by irradiation therapy is impressive. On the other hand, the individual who, because of such treatment, develops a connection between the bladder and vagina or, as sometimes happens, between the bladder, bowel, and vagina, is often an invalid and social outcast. Surgical procedures designed to correct this type of fistula fail because of the complete deterioration of the tissues available for surgical repair. Our experience with this type of problem has led us to believe that a more practical solution lies in total urinary diversion.

The most satisfactory type of diversion in our hands has been accomplished by anastamosis of both ureters to an isolated segment of bowel (Figure 4). The proximal end of this segment is closed and the distal end brought to the abdominal skin to empty into an adherent collecting device. The pyelograms of a patient who had an enterovesical, as well as a vesicovaginal fistula, subsequent to extensive irradiation therapy (Figure 5) demonstrate massive right hydronephrosis due to fibrosis about the ureteral orifice. A diverting colostomy and uretero-ileostomy was carried out and Figure 6 demonstrates the marked improvement in the pyelographic appearance several years after this procedure.

Our total experience with the use of this procedure in vesicovaginal fistulae is demonstrated in Figure 7, which is a summary of our experience with the use of the procedure in all conditions as of late 1961. The only patient with vesicovaginal fistula who died after this procedure had hepatic cirrhosis and her wounds failed to heal. All of the patients treated by this method have

expressed their appreciation of this solution to their problem.

EXTRA-VESICAL FISTULA

The distal ureter may be damaged during pelvic surgery so that a fistula develops between the ureter and the vagina or perineum in which the



Figure 8. Urogram of patient with ureterouterine fistula.

fistula's opening in the ureter is well above the bladder level. In such instances, provided the defect is not too far from the bladder, the fistula may be excised and the ureter reimplanted into the bladder. The proximal ureter is incised to form an elipse which facilitates the suturing and provides a wide circumference for the stoma. Five "O" chromic swaged catgut or three "O" plain catgut is used and the sutures passed through all layers of both ureter and bladder wall. No splints are used and the area is drained extraperitoneally.

If the fistula arises at a higher level, direct reimplantation may be difficult or impossible. In this instance, adequate mobilization of the bladder may permit one to pull up the dome and posterior wall almost to the level of the iliac vessels where the bladder is sutured to the retroperitoneal tissues, thus allowing direct reimplantation of the ureter into the viscus. Still higher fistulae may necessitate the development of a bladder flap. This is taken from the anterior and superior surface of the bladder as a strip of the full thickness of the bladder about 2 cm. in width, increasing in width as one approaches the posterior wall and base. It is essential that one include the superior vesical artery in the base of this flap. The flap is fashioned into a tube by means of sutures of plain catgut and the ureter implanted into the end of the tube in a similar fashion. A water tight anastamosis is not sought in this instance but rather good apposition by interrupted sutures so that the blood supply is not compromised. There should be no tension on the anastamosis. This may be facilitated by suturing of the flap to the retroperitoneal tissues. Extraperitoneal drainage is accomplished and the bladder is drained by means of a cystostomy tube for at least two weeks.

URETEROUTERINE FISTULA

In the past few years, we have become acquainted with a lesion which seems rather unique. We had seen none of these prior to 1960 and since have seen three. In each case, the patient had a cesarean section with a low transverse



Figure 9. Urogram of patient after repair of ureterouterine fistula.

incision. Apparently, there was some lateral tearing of the incision during the course of the delivery but this was sutured without any abnormality being noted. About one week after surgery the patient began to drain urine from the vagina. An excretory urogram demonstrated hydronephrosis on one side (Figure 8). Further study indicated a connection between the ureter and uterine corpus, urine being seen to drip from the cervical orifice. One patient demanded preliminary nephrostomy drainage because of sepsis and in two, immediate exploration was carried out, demonstrating the fistula. This was excised, the ends of the ureter apposed by means of eliptical anastamosis and in each instance, a perfectly satisfactory result was accomplished. A postoperative excretory urogram on such a patient is shown in Figure 9.

SUMMARY

Every effort should be made to prevent trauma to the bladder and ureter during the course of pelvic surgery and irradiation. When a fistula develops, accurate localization and care to eliminate the possibility of double fistula must be made. Application of several principles of repair which I have stressed here, namely excision of the fistula, careful restoration of normal anatomical relationships, and urinary diversion until healing occurs will then result in the cure of most of these troublesome problems.

In the case of irradiation injuries, total urinary diversion must be considered as essential for preservation of renal function and patients' social acceptability despite the necessity for a major intra-abdominal procedure and cutaneous stoma.

★★★

3400 Spruce St.

REFERENCES

1. Moir, J. Chasser: The Vesico-Vaginal Fistula, Baltimore, Williams and Wilkins, 1961.
2. Murphy, John J.: Management of Some Late Complications of Pelvic Irradiation, 74:780-788 (Dec.) 1955.

WHAT KIPLING DIDN'T MENTION

If you can fill the unforgiving minute
With sixty seconds' worth of distance run,
You'll have the world and everything that's in it—
And a coronary before you're fifty-one.

—*Lancet*

Cytoplasmic Fluorescence of Malignant Cells

STEPHEN L. GAMMILL, B.A., B.S., DALTON V. JOHNSON,
and JOEL G. BRUNSON, M.D.
Jackson, Mississippi

The results obtained by examining cervical smears stained by the cytoplasmic fluorescent technique were compared to the results obtained by biopsy and the Papanicolaou method. An accuracy of about 90 per cent obtained in those called negative by the fluorescent method, compared to 95 per cent accuracy by the Papanicolaou method. Slightly less than 45 per cent were correctly classified as positive by fluorescence, compared to 68 per cent correctly diagnosed as positive by Papanicolaou technique. Of the fluorescent suspicious group, 36 per cent had histologic evidence of a malignant neoplasm, compared to 11 per cent in the Papanicolaou group. The studies indicate that the fluorescent technique is comparable to the Papanicolaou method in elimination of negative smears, but that suspicious or positive smears should be destained and examined by the conventional method if cytoplasmic fluorescence is the only criterion used in diagnosis.

In recent years, several reports have described techniques in which acridine orange (AO) has been used as a fluorescent stain for the identification of malignant cells in cervical smears and in body cavity fluids.[1, 2, 3] Basically, this method is dependent on the affinity of the dye for ribonucleic acid (RNA) and desoxyribonucleic acid (DNA).[4] Since rapidly proliferating cells, such as immature or malignant cells, have an increased amount of cytoplasmic RNA compared to mature or well-differentiated cells,[5] it is theoretically possible to distinguish malignant cells from normal cells by their degree of cytoplasmic fluorescence. Conversely, it is possible to obtain false information if cytoplasmic fluorescence alone is the criterion, since certain inflammatory conditions are also associated with rapidly proliferating cells containing more RNA than adult cells.

In the present study, cyptoplasmic fluorescence with acridine orange was utilized in studying a series of cervical smears and vaginal aspirations. The results were compared with those obtained by the Papanicolaou method and with biopsy material.

MATERIALS AND METHODS

Between January and July, 1960, cervical smears and vaginal aspirations from 500 random patients (1,000 slides) at the University of Mississippi Hospital were examined by the AO fluorescent method. Duplicate smears from the same patients were examined by the conventional Papanicolaou technique. In each case, neither the clinical history, Papanicolaou diagnosis, nor biopsy result were known by the observer who examined the AO preparations.

Smears stained by the AO method were read as positive, suspicious, or negative. A positive diagnosis of a malignant cell was made when the cytoplasm fluoresced an intense, flaming red orange. Cells in which cytoplasmic fluorescence was of low intensity or an orange color were called suspicious. Cells in which the cytoplasm fluoresced yellow, light orange, or green were called negative. Papanicolaou classes IV and V were considered positive for malignant cells, Class III was regarded as suspicious, and Classes I and II were considered negative for malignant cells.

For AO staining, the slides were fixed immediately after preparation in an ether-alcohol mixture. They were then stained by the following method:

From the Department of Pathology, University of Mississippi School of Medicine.

1. 80 per cent ethanol: 10 seconds
2. 70 per cent ethanol: 10 seconds
3. 50 per cent ethanol: 10 seconds
4. Distilled water: 10 seconds
5. 1 per cent acetic acid: 10 seconds
6. Distilled water rinse: 10 seconds
7. 0.01 per cent acridine orange solution in pH phosphate buffer: 3 minutes
8-10. pH 6 phosphate buffer rinses: 10 seconds in each
11. 0.1 M Calcium chloride: 45 seconds (differentiation)
12. Slides mounted in solution of phosphate buffer pH 6 and coverslip
13. Slides read within one hour as preparations not permanent

When this concentration (0.01 per cent) of acridine orange is used in conjunction with the short staining time of three minutes the pH must be adjusted to 6 in order to obtain a reproducible spectrum of suitable cytoplasmic color. The buffer is made by adding 5.60 cc. of 0.1 normal sodium hydroxide to 50 cc. of 0.1 molar monopotassium phosphate and bringing the total volume to 100 cc. with distilled water. Several gallons of buffer may be made at one time and stored at room temperature provided the solution is filtered before use. The buffer rinses in steps eight through ten above must be changed frequently, as the decolorization procedure becomes less efficient in removing dye after some 30 or 40 slides have been processed. It is also desirable to change the other dishes of solutions frequently, since contaminating dye produces undesirable background fluorescence. After the slides are stained and examined, they may be destained in 50 per cent ethanol and restained by the conventional Papanicolaou method if desired.

The microscope used was a Zeiss standard GFL binocular microscope equipped with a plain aluminized mirror, quartz condenser, and yellow ocular suppression filter. The light source was a Zeiss-Winkel lamp which contained an HBO 200 (Osram) mercury arc bulb. One 5113 and two BG 12 primary filters, which transmit near ultraviolet and blue-violet light, were used. The condenser diaphragm was adjusted until a black background was obtained under high dry magnification. Initial examination of the slides was carried out under low magnification, and suspicious areas were then examined under high dry magnification.

A positive diagnosis of a malignant neoplasm was made when the cytoplasm of several cells fluoresced an intense red-orange. Slides in which only a few cells fluoresced this color or those in which there was doubt as to degree of intensity of the red-orange fluorescence were diagnosed as suspicious. All other slides were read as negative. Positive and suspicious cells were generally photographed on 35 mm. Ektachrome film with an exposure time which varied from five minutes to 12 minutes depending on magnification.

RESULTS

Table I summarizes the total number of cases. As shown, a large majority of the cases were placed in the negative category both by the AO method and by the Papanicolaou method. Comparatively, there were more positive slides in the AO group than in the Papanicolaou group, but more in the Papanicolaou group were classed as suspicious (Class III) than in the AO group. These figures, however, do not take into account the diagnoses obtained by histologic examination of tissue sections.

TABLE I

COMPARISON OF AO AND PAPANICOLAOU RESULTS (500 CASES)

	Number		
Method	POSITIVE	NEGATIVE	SUSPICIOUS
AO	51	408	41
PAP	37	396	67

In Table II the results of the cases which underwent biopsy (160) are compared with the positive and negative results obtained by AO and Papanicolaou techniques. As shown in Table II, there were 25 cases in which there was a tissue diagnosis of carcinoma, and in 135 cases there was no histologic evidence of carcinoma. Less than half of these were accurately classified as positive by the AO technique (44 per cent) while almost 70 per cent were accurately classified as positive by Papanicolaou technique. In the negative group, however, an accuracy of 90 per cent was obtained

TABLE II

COMPARISON OF AO-PAPANICOLAOU POSITIVE AND NEGATIVE CATEGORIES WITH RESULTS OBTAINED BY BIOPSY (160 CASES)

	Number		*Per Cent Accuracy for Biopsy*	
Method	POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
AO	11	149	44%	90%
PAP	17	143	68%	94.4%
Biopsy	25	135		

with the AO technique and slightly less than 95 per cent with the Papanicolaou technique, an insignificant difference.

Table III compares the results of cases in which a diagnosis of suspicious was made. Of 14 placed

TABLE III

COMPARISON OF AO-PAPANICOLAOU SUSPICIOUS CATEGORY WITH RESULTS OBTAINED BY BIOPSY

Method	*No. Cases*	*Biopsy Result* POSITIVE	NEGATIVE	*% Susp. That Were Positive*
AO	14	5	9	35.7%
PAP	37	4	33	10.8%

in the suspicious category by AO technique, 9 had no evidence of a malignant neoplasm by biopsy. Of the 37 classified as suspicious by Papanicolaou technique, 33 had negative biopsy studies. It thus appears from these data, that about 36 per cent of cases called suspicious by AO technique will have a biopsy positive for cancer, while only about 11 per cent of those called suspicious by Papanicolaou technique will have a positive biopsy.

There were 391 cases in which the diagnosis by Papanicolaou and by AO methods coincided, an agreement of 78 per cent. These cases are compared in Table IV to the results obtained by biopsy. Of those in which both methods of study

TABLE IV

CASES IN WHICH AO AND PAPANICOLAOU METHODS COINCIDED IN DIAGNOSIS, COMPARED TO BIOPSY RESULT

Category	*No. Cases*	*Number With Biopsy*	*Biopsy Report* POSITIVE	NEGATIVE
Both Negative	354	107	2	105
Both Positive	19	13	9	4
Both Suspicious	18	6	2	4

were negative (354) there were 107 in which biopsy was performed. Of this number only 2 had biopsy evidence of carcinoma, which in both cases was papillary adenocarcinoma of the uterus. Of the 6 cases biopsied in which a diagnosis of suspicious was rendered, 4 of these had histologically proven malignancy and in 2 no histologic evidence of cancer was present. Of 19 cases in which a positive diagnosis was made, there were 13 biopsy studies. Of this number 9 were positive and 4 were negative, an accuracy of about 69 per cent. These data again emphasize the high degree of accuracy obtained by either of these procedures when a negative diagnosis is made (approximately 98 per cent in this group).

Table V summarizes the cases in which the Papanicolaou and AO diagnoses did not coincide in 53 cases in which biopsy was obtained. Of the 8 cases in which the AO result was positive, the Papanicolaou result negative, and the biopsy result negative, 2 of these showed squamous cell metaplasia, a condition in which there may be immature cells having increased amounts of cyto-

TABLE V

CASES IN WHICH AO AND PAP METHODS DID NOT COINCIDE IN DIAGNOSIS, COMPARED TO BIOPSY RESULT (53 CASES)

No. Cases	*AO*	*PAP*	*Biopsy*
8	Pos.	Neg.	Negative
2	Pos.	Neg.	Positive
1	Pos.	Neg.	Radiation Reaction
5	Susp.	Neg.	Negative
1	Susp.	Pos.	Positive
27	Neg.	Susp.	Negative
2	Neg.	Susp.	Positive
7	Neg.	Pos.	Positive

plasmic RNA. Of the 2 cases in which the AO result was positive and the Papanicolaou result negative, both showed histologic evidence of cancer; one was a leiomyosarcoma of the uterus and the other a polypoid carcinoma of the cervix. As shown in this chart, there appears to be a higher possibility of obtaining a false-positive AO result in postradiated cervical carcinoma, probably due to the fact that radiated cells may contain increased amounts of RNA.[6, 7]

There were 49 cases in which the Papanicolaou and the AO diagnoses did not coincide but in which no biopsy was obtained. Clinical data in seven of these, however, indicated that a biopsy should have been performed, but these patients have not been followed.

DISCUSSION

The value of cytologic study for the early detection of uterine cancer is well recognized. Two of the limitations of this method of diagnosis are the time required to examine preparations and the lack of adequately trained personnel for screening the smears. This problem increases in magnitude yearly because of the generally accepted feeling that a cervical smear and vaginal aspiration should be part of any routine physical examination of a female patient.

It thus appeared reasonable to explore other avenues with a view toward the more rapid screening of smears and utilization of less skillfully

trained personnel. The use of fluorescent dyes for staining, and examination of smears under ultraviolet light, appears to merit considerable investigation. Since the staining procedure is simple and rapid (six minutes), a considerable saving of time is effected. Further, the different degrees of color and intensity of cytoplasmic fluorescence can be easily recognized by an unskilled observer within a reasonably short period of time. These features prompted us to compare the results obtained by examination of cervical and vaginal cytologic preparations by the AO fluorescent method with those obtained by the routine Papanicolaou method of staining.

The results of this study indicate that a high degree of accuracy is obtained in those stained and examined by the AO fluorescent method in the negative category (about 90 per cent). However, in those classed as suspicious or positive, a much higher degree of accuracy is obtained by the Papanicolaou method than by the AO technique.

These discrepancies may be explained, in large measure, by the presence of cells with increased content of cytoplasmic RNA, such as may occur in certain inflammatory conditions of the cervix or in patients who have been radiated previously for carcinoma of the cervix. It should be emphasized that in these studies a diagnosis was rendered solely on the basis of color and intensity of cytoplasmic fluorescence. If one takes into account the morphologic characteristics of the nucleus and the nuclear-cytoplasmic ratio in such fluorescent studies, it is possible that a much higher degree of accuracy might be obtained with respect to the suspicious and positive category. Such studies are at present time in progress.

Nevertheless, the high degree of accuracy obtained by the AO technique in the negative group suggests that this method may have considerable value in the routine physical examination of female patients. Similarly, AO stained preparations are easily destained by placing in 50 per cent ethanol, and all suspicious or positive cells may then be examined by the conventional Papanicolaou method. Since a large majority of cytologic preparations in this laboratory are ultimately placed in the negative category, this procedure would effect a considerable saving in time, and permit expansion of the cytologic service without the addition of extra personnel.

There are several other factors which must be considered if this technique is to become a part of the routine examination of cytologic preparations. One of these is the prompt examination of smears. It was found, in the course of the study, that preparations which were left for longer than one week in the fixative became unsuitable for diagnostic purposes, largely due to the loss of cells from the slides. It is recommended, therefore, that all smears to be examined by the AO procedure should be stained and read within three or four days after fixation.

Another factor to be considered is the expense involved in obtaining the proper ultraviolet equipment. Although a special microscope and lamp attachment were used in the present studies, cheaper equipment is now available for this purpose and has proven satisfactory in other laboratories. It is easily possible, with a proper lamp, to modify a standard monocular or binocular microscope for use in this procedure.

In our experience, it has also been found that the pH of the buffer should be as close to 6 as possible and that the staining time of three minutes and the differentiating time in calcium chloride (forty-five seconds) are critical; alteration in any of these lead to differences in staining and different degrees of intensity of fluorescence. Finally, the slides must be read within a reasonably short period (one hour) after staining since the degree of cytoplasmic fluorescence diminished rapidly and this may lead to false information. It is possible, however, to stain and examine ten or twelve slides per hour.

SUMMARY AND CONCLUSIONS

The results obtained by staining a series of cervical smears and vaginal aspirations by the AO fluorescent technique have been compared to the results obtained by examination of biopsies and duplicate smears from the same patients stained by the Papanicolaou method. The results were placed in a diagnostic category of negative, suspicious, or positive for malignant cells. Using a biopsy diagnosis as the most reliable criterion for diagnosis, an accuracy of approximately 90 per cent was obtained in those called negative by the AO technique, compared to an accuracy of slightly less than 95 per cent by the Papanicolaou technique. In those called suspicious by the AO technique approximately 36 per cent showed histologic evidence of carcinoma, while only 11 per cent of those called suspicious by the Papanicolaou technique had biospy evidence of a malignant neoplasm. In those called positive by the AO technique, an accuracy of slightly less than 45 per cent obtained when the results were compared to biopsy material, while for the same group an accuracy of 68 per cent was obtained in the Papanicolaou group.

In the present study the sole criterion used in evaluating the AO preparations was the degree and intensity of cytoplasmic fluorescence. This factor may account in part for certain discrepan-

cies in the results between the AO technique and the Papanicolaou technique since inflammatory conditions of the cervix associated with rapidly proliferating cells and postradiated carcinomas of the cervix may have cells which contain increased quantities of cytoplasmic RNA. It is probable that a careful appraisal of nuclear characteristics, as well as cytoplasmic fluorescence, may markedly increase the accuracy of the fluorescent method in correctly diagnosing malignant cells.

The results indicate that the AO technique is comparable to the Papanicolaou method for elimination of negative smears. The method appears to have considerable merit where large numbers of cytologic preparations are to be examined, but all suspicious or positive preparations should be destained and examined by the conventional Papanicolaou method. ★★★

2500 North State Street

These studies were supported by funds from the National Institutes of Health, Public Health Service (A-3552, CT-794 (C13)).

REFERENCES

1. Bertalanffy, L. von; Masin, F.; and Masin, M.: Use of Acridine Orange Fluorescence Technique in Exfoliative Cytology, Science 124:1024-1025, 1956.
2. Bertalanffy, L. von; Masin, M.; and Masin, F.: A New and Rapid Method for Diagnosis of Vaginal and Cervical Cancer by Fluorescent Microscopy, Cancer 11:873-885, 1958.
3. Elevitch, F. R., and Brunson, J. G.: Rapid Identification of Malignant Cells in Vaginal Smears by Cytoplasmic Fluorescence, Surg., Gynec. & Obst. 112:-3-10, 1961.
4. Shugger, S.: Fluoreszenmikroskopische untersuchungen ueber die Aufnahme und Speicherung des Akridinorange durch lebende und tote Pflangenzellen, Zschr. Naturwissensch. 73:97-134, 1940.
5. Moberger, G.: Malignant Transformation of Squamous Epithelium; Cytochemical Study With Special Reference to the Cytoplasmic Nuclei Acid and the Proteins, Acta radiol. Suppl. 112:1-108, 1954.
6. Mitchell, J. S.: Disturbance of Nucleic Acid Metabolism Produced by Therapeutic Doses of X and Gamma Radiations, II. Accumulation of Pentose Nucleotides in Cytoplasm after Radiation, Brit. J. Exper. Path. 23:296-308, 1942.
7. Mitchell, J. S.: Metabolic Effects of Therapeutic Doses of X and Gamma Radiation, Brit. J. Radiol. 16:339-343, 1943.

POTOMACESE

The Washington wonderland of federalism has long been noted for its language of bureaucracy but the New Frontier has a lexicon all its own. Check to see how many of the following phrases are in your vocabulary:

Citizen investment: taxes
Economic sophistication: inflation
Social security health insurance: socialized medicine
Minus adjustment: debt
Men of good will: those who agree with us
Downward readjustment: stock market crash

If you use one, you're a social progressive; two, a government consultant; three or more, a JFK cabinet member!

Acute Appendicitis in Children

LUTHER A. LONGINO, M.D.
Boston, Massachusetts

Appendicitis, the most common condition requiring intra-abdominal surgery in infancy and childhood, often results in rupture of the appendix because of the difficulty of early recognition. The author discusses the factors in differential diagnosis and describes treatment and complications. He recommends that patients in whom appendicitis is expected be hospitalized for 24 or 48 hours of observation.

APPENDICITIS IN THE PEDIATRIC age group is still of paramount importance because of its frequency. It is the most common condition requiring intra-abdominal surgery in infancy and childhood. During the past few decades the mortality and morbidity from this disease have shown a constant decline. At the present time the mortality from appendicitis should be and is, in the better institutions, practically nil.

DIAGNOSIS

Accurate early diagnosis is the most important single factor in the care of the patient with appendicitis. The triad of abdominal pain, fever, and vomiting should be considered indicative of appendicitis until proven otherwise. Boys are affected slightly more frequently than girls. Appendicitis is rare during the first year of life, uncommon during the second year, but after this is seen with rapidly increasing frequency.

In older children, symptoms follow the more classical course of periumbilical pain followed by nausea, vomiting, low-grade fever and, in a few hours, shift of the pain to the right lower quadrant. In smaller children, vomiting is apt to occur before the parents are aware of any abdominal discomfort. Children are generally vague and inaccurate in describing the location of pain, and it is frequently impossible to obtain a history of early periumbilical discomfort. Pain is usually constant due to the inflammatory process in the appendix but may be colicky due to obstruction of the appendiceal lumen.

Vomiting is present in almost all cases and is usually preceded by anorexia of varying degree. Vomiting may have occurred only once, but if symptoms are of long duration, it is apt to have been persistent. Younger children seem to vomit more repeatedly than those of the older age group.

Fever is usually low-grade in the range of 37.8° to 38.3° C., but if rupture has occurred and peritonitis ensued, the temperature is likely to be 39.4° C. or more.

Bowel movements may be normal, although constipation is more common. Diarrhea can occur when an inflamed appendix is adjacent to the sigmoid, terminal ileum or when early peritonitis is present. Urinary symptoms are uncommon but may be associated with an acutely inflamed appendix lying in the region of the right ureter or bladder.

HISTORY

Only a small percentage of children with appendicitis have a history of previous attacks of abdominal pain. When previous similar attacks have occurred, an appendo-fecalith is apt to be found. Other illness preceding acute appendicitis is not common, though history of recent respiratory infection is not rare in any group of children.

Since the history frequently gives only a hint to the diagnosis of appendicitis, much emphasis must be placed on the physical findings. The symptoms, especially in the small child, are frequently nonspecific such as irritability, fretfulness, fever, loss of appetite, and vomiting. This sort of history may

From the Department of Surgery, Harvard Medical School, and the Surgical Service, Children's Hospital.
Read before the Section on Pediatrics, 94th Annual Session, Mississippi State Medical Association, Jackson, May 7-10, 1962.

be given by the parents who have a small child with an infectious process almost anywhere in the body. The history is mostly second-hand by way of the parents whose observations are flavored by their interpretation of what a particular behavior means in their child. The statements of the children themselves are frequently vague and they have difficulty in expressing their exact feelings and the location of the pain. For these reasons a careful and thorough physical examination is imperative.

PHYSICAL EXAMINATION

Time spent in gaining the cooperation of the child is well worthwhile. The examination of the abdomen of a crying, kicking child is not only impractical, but the findings are utterly worthless. While one is trying to gain the child's confidence, much information can be obtained by observation. The extent of dryness of the skin, the position of the legs, the type of respiration, the luster of the eyes or the extent to which they are sunken, and the reaction to those about him may give one a good idea as to just how sick the patient is and may give a hint of the site of the pathologic process.

If the child is resting quietly in the parent's arms, it is a good practice to palpate the abdomen gently before moving him. Merely leaving the parent's arms is frequently enough to upset a child for some time. The abdomen should be palpated gently with warm hands, starting on the portion of the abdomen which is least likely to be tender, then progressing to the area which is most likely to be tender. Tenderness is the most constant single finding in appendicitis and is almost inevitably present. The tenderness is usually maximum in the right lower quadrant, but may be most intense in the right upper quadrant or left lower quadrant. The appendix in the child is longer in relation to the size of the abdominal cavity than in adults and hence may present maximum tenderness over a comparatively larger area. Muscle spasm is the second most common finding. This is best detected by simply resting one's hand on the abdomen and noting after a few moments whether there is relaxation of the abdominal musculature during inspiration. In simple appendicitis, the findings are unusually localized, while in ruptured appendicitis the findings are more diffuse. Bowel sounds are, as a rule, hypoactive, but in the case of a spreading peritonitis, they may be hyperactive. When an appendiceal abscess is present, it may be palpated abdominally but is more often detected on rectal examination.

There are a small number of sick children who, in spite of almost infinite patience on the part of the examiner, are too irritable to be adequately examined. In this group of children, usually the 2 to 4-year-olds, it is most helpful to administer a barbiturate rectally. We prefer pentobarbital using a dosage of 5.5 mg/kg of body weight dissolved in 10 ml. of isotonic saline and given via a small rectal catheter. This dosage is safe and usually produces sound sleep in 30 to 45 minutes. The child can then be examined without difficulty. The parents are also much happier since the child is sleeping quietly and is in no obvious discomfort. The physical findings are not masked by this medication. Muscle spasm persists but voluntary guarding is absent. When a tender area is palpated, the child will arouse momentarily from sleep and then drop back into slumber after the examining hand is removed. Under these conditions, the findings are much more valid than in an irritable, crying child. (An opiate is, of course, never used for this purpose.)

After the abdominal examination, a complete physical examination must be done to rule out the many other conditions which may produce abdominal pain in children. The physical examination is concluded with a digital examination of the rectum. Positive findings are present by rectal examination in about three-fourths of the cases of appendicitis. Tenderness may be more accurately localized and induration may indicate the presence of an inflammatory process. A firm, tender mass indicates the presence of an abscess, while a diffuse, boggy tenderness is found in the presence of generalized pelvic peritonitis.

LABORATORY DATA

The usual laboratory data which are obtained are a complete blood count and a routine urinalysis. The leukocyte count is usually elevated to about 15,000/mm.,^{3} while counts of 20,000/mm.^{3} or more are more apt to imply the presence of a ruptured appendix. Elevation of the polymorphonuclear ratio is a more constant finding. Anemia may be present in children who have been sick for some time and especially in those who have an appendiceal abscess of several days' duration.

The urinalysis helps to exclude abdominal pain of urinary tract origin. Acetonuria or its absence is helpful in determining the metabolic response to infection. Children with acetone in the urine have sufficient alteration in metabolic activity that they tolerate anesthesia and operative procedures poorly. With adequate hydration and reduction of fever, acetone is no longer present in the urine.

There are a number of conditions which at times may cause a patient to have symptoms and physical findings resembling appendicitis. If the diagnosis is not apparent after the initial examination, observation of a few hours is usually helpful in establishing the diagnosis. If the physician can see the patient frequently at home, this is perfectly adequate. We have usually found it more satisfactory to admit such patients to the hospital where they can be seen frequently and, if necessary, the blood counts can be repeated. If appendicitis is actually present, little or no harm will be done by this period of observation. When the symptoms are not due to appendicitis, it usually becomes apparent during this time and many needless operations can be avoided. If a reasonable doubt still persists about the possibility of appendicitis, a laparotomy should be undertaken.

TREATMENT

The treatment for appendicitis is prompt appendectomy. To operate on these children with safety, they must be in the best condition the disease process permits. Preoperative preparation of patients with simple appendicitis, with symptoms of short duration and without rupture, usually presents no problem. The medication consists of pentobarbital, morphine, and atropine in appropriate dosages. An intravenous infusion is started, and the stomach is decompressed through an indwelling nasogastric tube.

For those children with symptoms of longer duration and those who are toxic from ruptured appendicitis with peritonitis, the preoperative period of preparation is of the utmost importance. They are usually dehydrated, ketonic, and have rapid pulse and high fever. Children in this condition tolerate anesthesia and operative procedures quite poorly. We prefer to have the pulse and temperature on the decline at the time of operation, with the pulse less than 120/min. and the rectal temperature 38.7° C. or less. These are rather arbitrary figures, but experience has shown that if these criteria are met, the patients tend to tolerate the operative procedures satisfactorily.

Preoperative preparation in these sick children includes hydration, sedation, reduction of fever, and the use of antibiotics. An intravenous infusion is started at once to combat the dehydration and replace the electrolyte loss due to vomiting. If the child is quite ill or is anemic, he is given plasma or blood. Sedation in the form of pentobarbital rectally and morphine subcutaneously are used liberally to relieve pain, decrease restlessness, and allay apprehension. Acetylsalicylic acid is given every three to four hours per rectum in appropriate dosages. Hydration, of course, enhances the reduction of fever, but the lowering of the temperature can also be facilitated by tepid water sponges, the use of electric fans, and, on occasions, by placing the patient in an iced oxygen tent.

The stomach is decompressed with a nasogastric tube connected to intermittent suction. The child is placed in Fowler's position to allow better respiratory exchange and to allow any purulent material to gravitate toward the lower abdomen. Atropine is withheld until the time of operation when it is given intravenously. This drug is withheld because, in those patients who have been atropinized, it is impossible to tell if the failure of the temperature and the pulse to respond to therapy is due to the atropine or due to the underlying infectious process.

Antibiotics are administered preoperatively to children who are thought to have ruptured appendices. Penicillin and streptomycin are given intramuscularly. In addition, the extremely ill children are usually given one of the broad-spectrum antibiotics.

As soon as the patient is hydrated, the urine no longer contains acetone, and the pulse and temperature are down to acceptable levels, the patient is operated on. This preparation can usually be accomplished in few hours; it rarely takes longer than six or eight hours. We never wait for the infectious process to be walled-off before operating. The program of "Ochsnerization" no doubt has a place in the treatment of adults with appendicitis, but in children and infants this approach is unwarranted. These small subjects do not wall off the ruptured appendix as well as adults, who have a longer, more effective omentum; hence, children tolerate continued peritoneal soiling poorly. The delayed approach causes an increased morbidity, longer hospitalization, increased expense, and no better results than those with prompt appendectomy.

A McBurney incision is usually employed. If the diagnosis is in doubt and there is a possibility of an extensive procedure being necessary, a right rectus incision with lateral retraction of the rectus muscle is made. Because of the slightly higher position of the cecum in a small child, the incision is made somewhat higher in the small subject than in the adult.

The actual removal of the appendix usually presents no special problem. After the meso-appendix has been divided, the base of the appendix is ligated with a catgut ligature and the appendix excised. The stump is treated with phenol and alcohol and inverted with a silk purse-string suture. If, however, the cecal caput is inflamed

and edematous, it is useless to attempt an inversion of the stump. When the omentum is adherent to the appendix, the adherent portion is removed with the specimen. Should the omentum be dissected from the appendix, there is a good possibility that a gangrenous or ruptured appendix would be exposed and the operative field contaminated.

We have employed drainage in all cases of ruptured appendix. Although it is obviously impossible to drain the general abdominal cavity for more than a day or two, we have the distinct impression that a number of these children do much better when the abdominal cavity is drained than they would have done had drainage not been used. There is usually a moderate amount of purulent drainage in the first few days postoperatively. This represents pus which would have had to be absorbed by the peritoneal cavity if external drainage had not been provided. Whenever a pelvic or abdominal abscess does develop, it is more apt to rupture into the drain tract and evacuate itself through the wound. A gauze-filled, soft rubber drain is placed down the lateral gutter into the pelvis and brought out through the wound. Care is taken to avoid placing the drain adjacent to the appendiceal stump for fear of contributing to the formation of a fecal fistula.

The high incidence of appendo-fecalith associated with ruptured appendix makes it worthwhile (if a fecalith is not found within a ruptured, excised appendix) to make a cursory exploration of the right lower quadrant in search of a free fecalith. It is possible to find and remove the fecalith from the free peritoneal cavity in a surprisingly large number of cases and thereby decrease the incidence of postoperative abscess formation.

We have never placed antibiotics or antimicrobial drugs directly into the abdominal cavity. We have always maintained that it is far better to have the patient saturated with such substances (by parenteral administration) before he gets to the operating table.

POSTOPERATIVE CARE

The postoperative care of a patient with acute unruptured appendix is usually rather simple. In most instances the Levin tube is removed the day following operation and the child is given clear liquids by mouth. If he tolerates this well, the diet is gradually increased and he is given a full diet and allowed to be up and around the ward in three or four days. The average hospital stay is about five to six days. As a rule, antibiotics are not employed in simple appendicitis.

The postoperative care of patients with ruptured appendix is much more vigorous than with the previous group. The child is placed in Fowler's position postoperatively in an effort to drain any peritoneal fluid into the pelvis. If this is done, any abscess which forms is more likely to form in the pelvis than in a more dangerous subphrenic and subhepatic area. The gastrointestinal tract is kept at rest for some days by maintaining nasogastric suction until peristaltic activity is resumed. During this period of time, appropriate fluids are administered parenterally in adequate quantities to relieve dehydration and to minimize any serious electrolyte disturbances.

Sedation is used freely, usually in the form of morphine given at regular intervals for two or three days. This gives these sick children with a tube in the nose and a needle in the arm much needed rest and freedom from pain. Acetylsalicylic acid is given rectally for appreciable elevations of temperature. Antibiotics are given routinely, penicillin and streptomycin usually being employed for a period of about five days. By this time the patient is usually taking feedings orally and can be given medications orally. During the past few years, the broad-spectrum antibiotics have been used with greater frequency as oral medications. Extremely sick patients are given protein parenterally in the form of blood, plasma, or human serum albumin. Widespread peritonitis rapidly depletes the body's protein reserve before it is manifest by a significant drop in concentrations of hemoglobin or protein in the blood. The abdominal drain is usually shortened daily beginning about the second postoperative day. This of course varies somewhat depending on the amount of drainage, but generally the drain is completely removed by the fifth to seventh postoperative day. Rectal examinations are done every day or two to follow the course of development of any rectal mass and to detect the presence of pelvic abscess should one occur.

The patient who has had a ruptured appendix is hospitalized until there has been no fever for at least two or three days, the leukocyte count is returning to normal, there is no evidence of abscess on rectal examination, no significant drainage from the wound and the drainage tract has been healed to the extent that it cannot be probed below the fascia of the abdominal wall. On the average this takes about 12 days. It is well to give a broad-spectrum antibiotic for several days after leaving the hospital. After discharge from the hospital, they are followed fairly closely until they

are asymptomatic, receiving no medication, and until any pelvic mass (which some have had) has completely disappeared.

COMPLICATIONS

The most common complications are abscesses and other infections. Most of the pelvic abscesses either rupture spontaneously into the rectum or vagina or subside with antibiotic therapy. The majority of the wound infections are stitch abscesses or other minor infections which do not prolong the patient's hospitalization.

Postoperative obstructions are also frequent. The group of obstructions which occur five to ten days after operation for ruptured appendix are almost always due to edema and the acute inflammatory process present in the right lower quadrant. If these patients can be tided over until the inflammatory process subsides, the obstruction will be relieved. Most of these cases can be handled satisfactorily by means of a Miller-Abbot tube.

SUMMARY

Early diagnosis is of the utmost importance, although in small children this may be very difficult.

Prompt appendectomy is the treatment for all children with appendicitis. The importance of adequate preoperative preparation and postoperative care of the sicker children is stressed. If appendiceal rupture has occurred, the appendix is removed and the abdominal cavity is drained.

The most common complications are residual infections and obstruction of the small bowel. Most of the immediate postoperative obstructions can be managed with a long intestinal tube.

The fact that nearly half of the patients have rupture of the appendix before the time of hospitalization is strong proof that much has yet to be accomplished in improving the early recognition of this disease, thus permitting surgery to be performed before rupture and peritoneal soiling has occurred. The most important effort that can be made in this direction (when the local physician cannot make frequent house calls to a sick child) is to recommend 24 or 48 hours of observation in a hospital for any child in whom appendicitis is suspected. At little expense, this allows frequent checking by appropriate members of the resident or visiting staff of the hospital. If findings suggestive of appendiceal inflammation disappear, the child generally can be sent home the following day. For those in whom the abdominal findings become more impressive under observation, operation can be undertaken while there is still an opportunity to do so before appendiceal rupture has taken place. ★★★

300 Longwood Ave.

SERMON ON THE MOUNTEBANK

And then there was the politically-inclined chairman of the hospital's board of trustees who swept out the chiefs of services to replace them with appointees more friendly to the county administration, thereby securing his tenure on the board.

Commented the deposed chief of staff: "Greater love hath no man than this, that he lay down his friends for his life."

Postmortem Cesarean Section

HOMER G. ELLIS, M.D.
Centreville, Mississippi

Successful postmortem cesarean section is a relatively rare procedure and appears infrequently in the literature. In May 1962, Journal MSMA added one more to the growing list of successful cases, and the report presented here brings the total number recorded to 144. The author discusses diagnostic factors, surgical management and legal aspects, and presents a case.

POSTMORTEM CESAREAN SECTION is a relatively rare procedure with only 143 successful cases reported to date in the literature and in personal communication to the author. The most extensive recent review of this subject is that of Kelly and Winston[1] published in 1956. These authors collected 111 cases from the literature and added two of their own.

Weil and Graber[2] contributed two more cases in 1957, one of which was performed following open thoracotomy and cardiac massage for heart arrest. Dekruif[3] in 1957 reported an infant survival after an 11½ minute delay and Thomas[4] in 1958 described delivery of a viable infant by section after the mother expired due to pulmonary embolism. Leonard and Stone[5] in 1958 contributed two more to the growing list of successful cases, and Wacker[6] added one in 1959. In a case of sudden maternal death due to amniotic fluid embolism, Hendrick[7] in 1960 reported survival of an erythroblastotic infant after multiple exchange transfusions. Trewin[8] added one more successful delivery in 1959.

Cesarean section on the moribund was discussed by Cloud[9] in 1960. He presented a case of an eclamptic patient with massive brain hemorrhage who was operated on with the consent of her husband. She died about 30 hours after surgery. The infant was discharged in apparently good health. Altogether, Cloud reported five successful postmortem sections.

In a personal communication to the author, Vasquez[10] described a patient with a known bicornuate uterus, who died following eclamptic convulsions with a fetus in each horn. A single lower segment incision was utilized, and a male and female infant delivered, both of which cried spontaneously. The delivery of twins by postmortem cesarean section was also described by Teter[11] in 1952.

Writing in the May 20, 1961, issue of *J.A.M.A.*, Behney[12] reported ten cases of successful postmortem cesarean section from the Michigan Maternal Mortality Study. Two of the 11 infants delivered in this series were twins. Ritter[13] in 1961 reported two successful cases. One of these infants, however, lived only one hour after delivery. Cannon, Cooke, and McDowell[14] contributed one case in February 1962.

In the May 1962 issue of JOURNAL MSMA, Wiener[15] reported the delivery of a viable infant following death of the mother from vascular disease in the form of pulmonary vascular embolism. Thus a total of 143 successful postmortem cesarean sections have been reported in the literature. To this rapidly growing list, the following case report is added, making 144 in all.

CASE REPORT

H. P., a 37-year-old Negro woman, gravida 12, para 9, abortus 2, was first seen during this pregnancy on Nov. 11, 1960, with a history of amenorrhea since March 1960. She had had hypertension for at least four years. She was advised to continue Raudixin and Diuril, which she took rather sporadically. At approximately 9 a.m. on Jan. 10, 1961, the patient suddenly fell while hanging out clothes and was unable to talk or move either of her right extremities.

On physical examination the patient was found to be unconscious and stertorous Cheyne-Stokes respiration and fluid in the lungs were noted.

Blood pressure was over 300 systolic. The patient was immediately given digoxin 0.5 mg. intramuscularly, reserpine 5 mg. intramuscularly, atropine sulfate 1/75 gr. subcutaneously, and Dicurin Procaine 2 cc. intramuscularly. She was referred to the Field Clinic for treatment.

As the patient was being moved from the automobile to the emergency room, she died. Less than five minutes later, a postmortem cesarean section was performed using the instruments of the tracheostomy tray. Under unsterile conditions all layers of the abdominal wall were divided with one incision. A classical incision was then made through the uterine musculature and a 7 pound, 1¼ ounce female was extracted with ease.

The infant was resuscitated, utilizing nasopharyngeal suction, oxygen, caffeine sodium benzoate, and artificial respiration. The child looked remarkably pink, and after 15 minutes of resuscitative efforts, had unassisted respiration, good color, active Moro's response, and a lusty cry.

The placenta was manually extracted and the abdomen was explored without finding any gross pathologic change. Autopsy permission was denied. At six days of age, the infant was discharged in excellent condition.

DISCUSSION

The earliest concept of postmortem cesarean section was more concerned with religious rites than with maternal or fetal welfare. As early as 715 B.C. the Romans decreed that the operation should be performed on any woman in late pregnancy so that the mother and baby might be buried separately. This procedure was also done during the Christian era so that the infant might be baptised.[16, 17]

Today the operation is undertaken in an effort to obtain a living child, even though the likelihood of success may be small. Without surgical intervention, however, the mortality for the unborn infant is 100 per cent.

The decision to perform a postmortem cesarean section is based on the probability of securing a viable infant. Determining factors are the duration of pregnancy and the length of time between the death of the mother and delivery. A gestation period of 26 to 28 weeks is generally considered the minimum time period compatible with a viable infant. Although 20 minutes is usually given as the maximum period a child can live following the death of its mother, the exact survival time depends on the suddenness of the mother's death. In cases such as amniotic fluid embolism, trauma, or pulmonary embolism, the mother's death is sudden and the chances of securing a living child are good. Where the mother's death approaches slowly, as in infectious diseases, malignancies, and debilitating conditions, the chances for the infant are less.

In general, whenever a reasonable chance of obtaining a living child exists, all efforts should be directed toward that end. While absolute proof of death may sometimes be difficult to obtain, certainly the absence of respiration, pulse, and audible heart beat are cause enough to proceed with a postmortem cesarean section. With the advent of closed chest cardiac massage for cardiac arrest, decisions may sometimes have to be made between immediate section or closed chest cardiac massage. Weil and Graber[2] report an instance in which thoracotomy and cardiac massage were followed by a successful postmortem cesarean section.

The importance of preparedness in the successful postmortem cesarean section cannot be overemphasized. Every hospital and every physician should have a planned procedure for such emergencies. Instruments and equipment should be available.

The surgical aspects of this operation do not involve a great deal of technical skill. Since speed is of utmost importance, time should not be lost in diagnostic measures such as maternal EKG's or in seeking signs of fetal life. Once a cutting instrument has been obtained, the abdomen should be immediately entered. The incision should be a swift one going through as many layers of the abdominal wall as possible. Some authors advise one incision through the entire abdominal wall as well as the entire uterine wall.

Once the infant is delivered, immediate resuscitation should be begun. Apparatus and materials for nasopharyngeal suction, endotracheal suction, oxygen, and artificial respiration should be ready.

If consent has been obtained for autopsy, it can be carried out immediately by extension of the previously made incision. If autopsy permission has been denied, an exploration of the abdominal contents through the incisions already made can be carried out and may give some clues as to the cause of death. In all events, the placenta should be delivered. De Lee[18] has observed that uterine contractions take place following maternal death and the removal of the placenta is advised to avoid later delivery.

LEGAL ASPECTS

Legal principles involved in postmortem cesarean section have not yet been clearly established. Concerned are both the rights of the surviving widower who has certain prior claims on the body

of his wife and the rights of the unborn child. It is not certain what crime, if any, a physician commits if he fails to perform the operation with the objective of saving the life of the child. Similarly, it is not clear to what extent, if any, a refusal by the father to consent to the procedure would relieve the physician of criminal or civil liability.

Some legal authorities contend that if the physician feels it possible to save the child's life, it is advisable for him to proceed with the operation even without consent. It is better, they state, to risk a civil suit which could be based only upon unauthorized mutilation of the wife's body after death than to fail to act at all. If the doctor has undertaken to deliver the child, his failure to perform a postmortem cesarean section might constitute negligence. Oklahoma is the only state with a law on this subject. Enacted in 1943, it permits a physician to perform the operation if the unborn child is viable, unless the persons legally entitled to the custody of the mother's body protest.

SUMMARY

The case report presented in this paper brings the number of successful postmortem sections reported to 144. Diagnostic, surgical, and legal aspects are discussed. ★★★

The Field Clinic

REFERENCES

1. Kelly, J. V., and Winston, H. G.: Successful Postmortem Cesarean Section, Am. J. Obst. & Gynec. 72:203,1956.
2. Weil, A. M., and Graber, V. R.: The Management of the Near-Term Pregnant Woman Who Dies Undelivered, Am. J. Obst. & Gynec. 73:754, 1957.
3. Dekruif, H., et al.: Postmortem Cesarean Section with Survival of Infant, J.A.M.A. 163:938, 1957.
4. Thomas, G. J.: Postmortem Cesarean Section, J. Obst. & Gynaec. Brit. Emp. 65:301, 1958.
5. Leonard, M. W. E., and Stone, M. L.: Postmortem Cesarean Section, Obst. & Gynec. 12:344, 1958.
6. Wacker, M. N.: Ruptured Cerebral Aneurysm in Pregnancy and Puerperium, Am. J. Obst. & Gynec. 78:1189, 1959.
7. Hendrick, J. W.: Postmortem Cesarean Section with Infant Survival, Obst. & Gynec. 15:207, 1960.
8. Trewin, M. L.: Postmortem Cesarean Section, Am. J. Surg. 98:758, 1959.
9. Cloud, I. G.: Cesarean Section on the Dead and Moribund, Obst. & Gynec. 16:27, 1960.
10. Vasquez, G.: Personal communication to the author.
11. Teter, L. F.: Postmortem Cesarean Section with Survival of Identical Twins, J. Michigan M. Soc. 51:1013, 1952.
12. Behney, C. A.: Cesarean Section Delivery After Death of the Mother, J.A.M.A. 176:617, 1961.
13. Ritter, J. W.: Postmortem Cesarean Section, J.A.M.A. 175:715, 1961.
14. Cannon, C. W.; Cooke, R. H.; and McDowell, R. W: Successful Postmortem Cesarean Section, J. Florida M.A. 48:717, 1962.
15. Wiener, W. B.: Case Report VII of the Maternal Mortality Study: Successful Postmortem Cesarean Section, J.M.S.M.A. 3:207, 1962.
16. Lattuada, H. P.: The Management of the Near-Term Pregnant Woman Who Dies Undelivered, Clin. Obst. & Gynec. 2:1043, 1959.
17. Lattuada, H. P.: Postmortem Cesarean Section: Surgical and Legal Aspects, Am. J. Surg. 84:212, 1952.
18. De Lee, J. B.: Principles and Practice of Obstetrics, ed. 7, Philadelphia, W. B. Saunders Company, 1938.
19. Bacon, C. S.: Legal Aspects of Postmortem Cesarean Section, Surg. Gynec. & Obst. 12:168, 1911.
20. Hanley, B. J.: The Rights of the Unborn Child. West. J. Surg. 66:175, 1958.

HUNGARIAN BOOMERANG

Interesting sidelight on the legal abortion problem is that Hungary's 5-year-old legalized abortion law has produced the unique situation of a country in which the annual abortion rate exceeds the birth rate (196,000 abortions last year, as opposed to 146,000 births). Abortions have outstripped births since 1957, the year following legalization of such operations, in this Iron Curtain country. Ironically, the reasoning behind the new law was that it would spur Hungary's birth rate by encouraging extra-marital relations among persons who might be unable to marry because of financial or other reasons. In practice, the easy-abortion statute has backfired; Hungary is now preparing to take counteraction.

Clinicopathological Conference XXXIV

Conducted by the Department of Pathology
Mississippi Baptist Hospital
Jackson, Mississippi

The patient in CPC XXXIV is a 39-year-old white male truck driver who had suffered from aphasia for four months prior to admission. According to the history, the patient had not worked steadily for ten years because of "poor circulation in his feet." His hands were also said to be "blue and black" and his right hand was reported to be numb at times. In the four months before admission, he had had two severe headaches, remaining unconscious for one week with the first and for two to three days with the second.

Case discusser is Dr. H. K. Stauss. Autopsy report is by Dr. Kenneth M. Heard.

THIS 39-YEAR-OLD WHITE MALE was admitted to the Mississippi Baptist Hospital on May 22, 1957, because of aphasia of four months duration. He had developed aphasia in December and had had this since with progressing difficulty. He seemed to understand anything that was said to him, but could not express himself. He also appeared confused at times and this had gradually become worse. According to the history, he had quit work two months prior to admission. Before this he had only worked for two months, and it was stated that he had not worked for ten years because of "poor circulation in his feet." His hands were said to be "blue and black," and his right hand was reported to be numb at times. It was also stated that he had had "some asthma" and did not get his breath well. There was also difficulty in vision at times.

He had had two severe headaches recently, remaining unconscious for one week with the first which began Jan. 25. With the second one he was unconscious for two or three days. His wife did not notice whether or not his neck was stiff. He had a cough in January accompanied by much soreness in the abdominal muscles. After he stopped smoking, his cough improved somewhat. In December with the first attack he also had a headache and was partially paralyzed on the right side, following which the aphasia developed. He was unconscious with this first occurrence for two or three days.

On neurological examination, the pupils were equal and reacted to light and accommodation. The fundi were normal. There was a suggestion of gross visual field defect on the right. He did not see as well on the right as on the left. There was a lower facial asymmetry. The right side was weaker than the left side. The tongue protruded in the midline. Rapid rhythmical and coordinated movements were not performed very well. The right side was more impaired than the left. Deep tendon reflexes were hyperactive throughout. The superficial reflexes were normal. The remainder of the neurological examination was essentially negative.

On general physical examination, the blood pressure was 150/90. There was some clubbing of the fingers. Initial laboratory work was not remarkable. He had a hemoglobin of 15.7 gm. and a hematocrit of 47 volumes per cent. The total white count was 11,300 with 85 per cent neutrophils, 11 per cent lymphocytes, and 4 per cent monocytes. On routine examination of the smear the platelets appeared adequate. On May 23, a cerebral arteriogram was done and was interpreted as normal. Skull x-rays made on May 23 were negative, and a portable chest film showed some findings bilaterally.

He was seen by medical consultants, one of whom thought that he might have a pseudotumor cerebri on the basis of chronic pulmonary insufficiency due to long-standing asthmatic bronchitis and emphysema. Blood chemistries done on May 23, 1957, showed amylase 35 units, bilirubin 0.6 mg. per cent, chlorides 597 mg. per cent, fasting

blood sugar 109 mg. per cent, potassium 5.1 mEq., sodium 155.2 mEq., thymol turbidity 1.8 units, total protein 7.05 gm. with 4.04 gm. of albumin and 3.01 gm. of globulin. The BUN was 17.3 mg. per cent.

A hemorrhagic study done on May 24 showed a definite thrombocytopenia with the platelets appearing markedly diminished on the smear and with the actual count being 91,800 by the indirect method in which the normal values range from 400,000-800,000. Capillary fragility revealed no petechiae in a 2.5 cm. circle on the forearm, but there were moderate numbers of petechiae on the hand and lower arm. The clot retraction was 0 per cent. The bleeding time was 9 minutes 30 seconds. The coagulation time was 11 minutes, 30 seconds. The prothrombin time of the plasma was 12 seconds (100 per cent of normal), and the prothrombin consumption time was 35 seconds. Because of the associated neurological findings, thrombotic thrombocytopenia purpura was considered, although there was no conclusive evidence of hemolytic anemia.

Ventriculograms done on May 24, 1957, showed no evidence of any space-occupying lesion or other abnormality in the cranial vault. The skin and muscle biopsies done during the hospital stay showed some slight changes in the vessels with evidence of vasculitis, but a definite diagnosis of thrombotic thrombocytopenia purpura could not be confirmed.

Further blood chemistries made on May 27, showed a CO_2 combining power of 62.6, a chloride of 638.7 mg. per cent, and a sodium of 159 mEq. On May 30, a catherized urine specimen showed 68 WBC and 35-40 RBC per high power field. More satisfactory films of the chest were made on May 27 and were interpreted as showing miliary type of infiltration in the lungs with a mass or consolidation in the right upper lobe, predominantly in the posterior segment, but involving some of the apical segment also. The patient had a rectal temperature of 101°F. on the date of admission, but this fell to normal shortly and remained so during the remainder of his stay. It was the desire of the patient's family to take him to their local hospital. He was placed on Meticorten, 15 mg. every six hours, discharged to a hospital near his home, and followed there for the remainder of his course. It is understood that his neurological symptoms, particularly regarding his sensorium, varied considerably during his stay. He apparently became rapidly worse, however, shortly before he died on July 11, 1957.

DISCUSSION

Dr. H. K. Stauss: "There is some additional information not included in the protocol. The digital clubbing involved the hands only. The skin was somewhat atrophic, hyperpigmented, and perhaps mottled, but there was no indication of petechiae (other than that incident to the Rumpel-Leede test), no ecchymoses, and no gangrenous changes. Heart examination showed no abnormal sounds and no arrhythmia or murmurs. The lungs apparently did not present any abnormal percussion or auscultatory findings. The patient had episodes of apnea, but his respiratory rate ranged at 20-24 per minute, with a transient maximum of 40 during some of the diagnostic procedures. The pulse rate varied from 70 to 100 and once rose to 120 per minute.

"Examination of the cerebrospinal fluid apparently did not include mention of pressures, but the report shows 33 per cent protein, 14 cells with 45 per cent polymorphonuclear forms and 55 per cent lymphocytes, a normal colloidal gold curve, a negative serology, and no cryptococcosis organisms. There is no record of protein and chloride determinations, or of examination for acid-fast bacilli. There is no record of tuberculin skin test or sputum examination for tubercle bacilli. Unfortunately, there are no amplifying data regarding the cough, asthmatic bronchitis, or other bronchopulmonary symptomatology, or chest findings, and no further information concerning the genitourinary tract, or the integument and peripheral circulation. Neither is there any documentation as to the possible previous respiratory acidosis.

"We are dealing with the case of a 39-year-old white male truck driver who had multiple system involvement. Some of the symptoms had been present for as long as ten years. However, the present and final illness began about four months prior to his May 22, 1957, admission, and the patient expired in another institution seven weeks later.

"The chief complaints and findings involved the central nervous system toward which the principal studies were directed. In addition, there were pulmonary and pleural findings, red blood cells and white blood cells in the urine, questionable skin changes, subjective complaints referable to the peripheral circulation, and thrombocytopenia.

"The first attack of the terminal illness occurred in December 1956 and was characterized by se-

vere headache, partial paralysis of the right side, and unconsciousness of two to three days duration. The next episode appeared about one month later and consisted of progressive confusion and unconsciousness lasting one week. It is not definitely known whether the patient had a stiff neck. The third attack, shortly before admission, represented stupor and coma of two or three days duration. During this period he also had intermittent visual difficulties of an unspecified nature. The chief complaint was an expressive aphasia of four months duration. The other abnormalities, all of longer duration, evidently were of secondary concern to the patient, his wife, and the physicians.

"The patient was admitted for neurosurgical investigation of a possible expanding mass lesion in the brain. And during the course of his study a hemorrhagic work-up was made because of thrombocytopenia.

"The pertinent neurologic findings included a gross visual defect on the right, with normal pupillary action and fundi, i.e., no obvious retinal lesions or papilledema. This, together with other findings, suggested a left occipital lobe lesion. The hyperactive deep tendon reflexes and the lower facial asymmetry and weakness suggested an upper motor neuron lesion, and an impairment of coordination, principally rightsided, was noted. Yet, routine skull films, arteriograms, and ventriculograms were negative. We do not know whether the patient had meningismus. The over-all neurologic picture then appeared to represent a postchiasmal and probably post-genicular lesion within the brain and probably also a meningeal process. But there were no obvious clues as to the etiology, i.e., no clear-cut indication of a vascular, inflammatory, granulomatous, or neoplastic lesion. The lack of sharply localizing findings in the history, physical or contrast studies, and the absence of papilledema make the diagnosis of a true primary tumor less likely.

RESPIRATORY SYSTEM

"Unfortunately, there is a paucity of information regarding the respiratory system. The medical consultant noted, however, this patient had "chronic pulmonary insufficiency due to long-standing asthmatic bronchitis and emphysema," and the patient still had a cough. Pseudotumor cerebri has not infrequently led to a mistaken presumptive diagnosis of brain tumor.

"The chronic emphysema-carbon dioxide intoxication syndrome is due to pulmonary insufficiency with anoxia and CO_2 retention. The CO_2 retention is the chief offender and the least well controlled or reversible factor of this condition which is characterized by increased arterial pCO_2, decreased blood pH and, hence, respiratory acidosis, as well as the decreased pO_2. The elevated pCO_2, the decreased O_2 content, and the low pH can produce a rise in jugular vein pressure (even where there is normal systemic venous pressure, no jugular vein or lateral sinus thrombosis, and no relative polycythemia), and will also cause a reduced cerebral oxygen consumption. The increased intracranial pressure produces pseudotumor cerebri with or without ventricular or spinal fluid pressure changes (or papilledema), but increased pCO_2 can also cause increased spinal fluid pressure and cerebral vasodilatation. The resultant symptomatology includes weakness, lassitude, headache ("emphysematous encephalopathy"), irritability, personality changes, confusion, stupor, even coma, and there may be symmetrical or unilateral motor weaknesses, pathologic pupillary reflexes, retinal hemorrhages, papilledema, and syncope. Unconsciousness is said to occur when the cerebral oxygen consumption falls below 2.1 cc. per 100 gm. brain tissue per minute —the normal value being 3.3 cc.

"This patient had many of the signs and symptoms of cerebrovascular changes due to the chronic emphysema syndrome. However, at the time of his study here he probably did not have overtly decompensated emphysema, i.e., he was not in frank respiratory acidosis as his CO_2 combining power was not abnormal, even though the blood chlorides and sodium were slightly altered. This is not to say that this man did not have chronic asthmatic bronchitis and emphysema with pulmonary insufficiency and that this could not, in some measure, have contributed to his neurologic abnormalities.

"The matter of the thrombocytopenia leaves me somewhat puzzled. The hemoglobin and hematocrit values do not indicate anemia. If anything, they are suggestive of hyperhemoglobinemia status and relative polycythemia often seen in compensated chronic pulmonary emphysema. We have no indication of jaundice or hemolytic phenomena, or clearcut evidence of true purpura. The only definite hematologic abnormalities are a marked platelet deficit and a markedly impaired clot retraction. The spleen is not reported as being enlarged, and there is no suggestive evidence of so-called hypersplenism. Therefore, when assuming bone marrow involvement by an infectious, granulomatous or neoplastic lesion, it is difficult to explain a selective action upon the megakaryocytes. However, it has been reported that miliary

tuberculosis can produce a thrombocytopenia such as this.

"From the information at hand it is difficult to assess the reported "poor circulation in the feet" and the statement that his "hands were also blue and black," presumably before his entry to the hospital. It would seem that the two or more examiners would have recorded petechiae, ecchymoses, abnormal pulses, temperature, or color changes indicative of Raynaud's phenomenon or Buerger's disease, or cutaneous lesions suggestive of Boeck's sarcoid or lupus. But inasmuch as this man is presumed to have had the chronic emphysema syndrome and digital clubbing, it could well be that the poor circulation in dusky extremities could have represented cyanosis and polycythemia often seen in patients with cor pulmonale.

"Regarding the genitourinary tract we merely have the urinalysis, so we can only speculate on renal disease. Even though we have no mention of any abnormal findings referable to the lungs, chest x-ray examinations within five days after admission revealed a miliary type infiltration in both lungs and a mass or consolidation within the right upper lobe. The films made on May 23 and 27 show diffuse bilateral pulmonary densities of the miliary type. The right upper lobe density, to me, appears more like a confluent or conglomerate parenchymal inflammatory infiltrate rather than a peribronchial neoplastic mass lesion. Nevertheless, primary and/or metastatic lung lesions cannot be unequivocally excluded. In addition, I see evidence of a pleural density on the right which suggests an old inflammatory pleuritis rather than a recent effusion due to either inflammation or tumor. The over-all radiographic picture is not particularly suggestive of pulmonary infarction. Also, I am impressed by a lack of obvious peribronchial hilar or other mediastinal lymphadenopathy. This interpretation of chest films in this case would not be particularly suggestive of the leukemia-lymphoma-Hodgkin's group of diseases involving the thorax, nor the findings usually seen in sarcoidosis or the fungus granulomata. On the other hand, I am rather suspicious of chronic, active, or recently reactivated tuberculosis of long standing.

"In my diagnosis I have attempted to ascribe all, or nearly all, the reported symptomatology and abnormal findings to one disease entity. I have also considered the fact that the bronchopulmonary difficulty was of long standing and possibly was the initial indication of disease. I have taken into account the consultant's impression and my speculation that the neurologic manifestations, at least in part, were secondary to pulmonary insufficiency. I shall place, therefore, the emphasis on the radiologically demonstrated major chest lesion as being part of a generalized, chronic disease.

DIFFERENTIAL DIAGNOSIS

"In searching for lesions which can produce such pulmonary pathology and also involve other systems, we must consider a number of entities. In the subacute variety we have miliary tuberculosis and miliary carcinomatosis, either hematogenous or lymphatic forms of dissemination. Among the more chronic processes there are:

A. Pulmonary fibrosis and/or granulomatosis
    1. Bronchiolar infections
    2. Boeck's sarcoid
    3. Tuberculosis
    4. Scleroderma
    5. Pulmonary adenomatosis
    6. Beryllium poisoning
B. Diffuse pulmonary vascular disease
    1. Recurrent embolism
    2. Pulmonary artery thrombosis
    3. Sickle cell anemia
    4. Schistosomiasis
    5. Pulmonary arteritis
        a. Thromboangiitis obliterans
        b. Lupus erythematosus
        c. Polyarteritis nodosa
        d. Rheumatic fever
        e. Raynaud's phenomenon

"Of the disease entities involving the central nervous system, and possibly the kidneys, as well as the lungs, we cannot exclude tuberculosis and scleroderma. While I cannot eliminate cancer as a diagnostic possibility, is seems unlikely in view of the ten year period of debility. Boeck's sarcoid may be eliminated by the lack of hyperglobulinemia and appreciable lymphadenopathy. Pulmonary adenomatosis should have produced a copious and characteristic bronchorrhea. There is nothing to support berylliosis. We have no suggestive history or findings for chronic pulmonary embolization. Massive pulmonary embolus should have been much more rapidly fatal.

"Sickle cell anemia can be excluded by virtue of race as well as hematology. There is no supportive evidence for schistosomiasis. Buerger's disease over this long period of time should have produced obvious severe peripherovascular impairment. Lupus erythematosus may be excluded by the lack of typical skin lesions and the chronicity of the course of this patient's illness, as well as the typical cells in the blood. Without anemia, abnormal

peripheral blood cells, eosinophilia and lymphadenopathy, we cannot substantiate leukemia, lymphoma, or Hodgkin's disease. Although the biopsy showed evidence of a vasculitis, polyarteritis nodosa seems very unlikely because of the lack of nodules, eosinophilia, and also because of the long duration of the disease.

"Not only by exclusion but by inference, the disease which not only can cause all the abnormalities listed but also has a distinct propensity for just this type of multiple system involvement is tuberculosis. It commonly involves the lung and also the pleura and often leads to pulmonary insufficiency due to infiltration, fibrosis, actual lung destruction as well as resultant emphysema. Genitourinary tract involvement is not uncommon. It can be relatively or totally asymptomatic at times and merely have the urinary findings listed here. As already stated, thrombocytopenia can occur in military tuberculosis. And, tuberculosis of the central nervous system, either of the meningeal and/or the miliary or tuberculoma type of cerebral involvement may produce any and all the neurologic symptoms and findings listed here and escape diagnosis.

"Cerebral tuberculoma, when the intracerebral lesions are very small, or tuberculoma en plaque and more superficial varieties may be present for a long time and progress slowly and produce delayed, bizarre symptomatology. The larger the lesion(s) the more like brain tumors they behave, but then they usually produce papilledema and convulsions or more localizing signs. The miliary variety is more commonly associated with meningeal disease. In tuberculosis meningitis common findings include headache, localized or generalized, intermittent or constant, and progressively severe, often accompanied by confusion and delirium; drowsiness, stupor and coma; cranial nerve palsies; exaggerated tendon reflexes; muscle weakness; motor deficits, symmetrical or unilateral; no fever; signs of meningeal irritation, which are often delayed; spinal fluid pressure, which is usually between 200 and 600 mm. water; pleocytosis, about 110-500 cells per cc.; and predominantly lymphocytic; diminished spinal fluid sugar and chlorides and elevated protein; rare xanthochromia; negative spinal fluid bacteriology in about 10 per cent of the cases.

"Accordingly, I choose tuberculosis as the primary agent in this case. Pulmonary tuberculosis, far advanced, bilateral, of long standing and likely reactivated rather than persistently active is my diagnosis. Tuberculous complications, by hematogenous rather than lymphatic dissemination or bronchial spread, include miliary tuberculosis; tuberculous meningitis and, perhaps, miliary involvement of the brain; possibly renal tuberculosis. Secondary diagnoses include chronic fibrous pleuritis, rather than recent effusion or empyema; chronic pulmonary emphysema, reasonably or at least partially compensated on admission, with digital clubbing and relative polycythemia. There was also thrombocytopenia secondary to bone marrow involvement by miliary tuberculosis.

"Cancer with intracranial metastasis, such as from bronchogenic carcinoma, would account for all the neurologic and pulmonary findings and also explain the thrombocytopenia, and thus be a tenable and highly probable diagnosis so far as the terminal illness is concerned, but would not be responsible for the symptomatology this patient had for a long time to within six or seven months of his demise. For that reason, I go back to tuberculosis as a logical explanation for the over-all history and findings in this case."

AUTOPSY REPORT

Dr. Kenneth M. Heard: "At autopsy the chief findings were in regard to the lungs and the brain. Each lung was quite heavy, the left weighing 840 gm. and the right 870 gm. A tumor measuring about 3½ cm. across was present in the upper lobe of the right lung. The entire lobe was firm and consolidated with most of this thought to represent spread of tumor. The remaining portion of the right lung and the entire left lung showed fine miliary metastatic nodules measuring from 1 to 3 mm. across. Microscopically this was considered to represent a terminal bronchiolar or alveolar cell carcinoma.

"In the brain there were multiple soft, generally yellowish zones mainly in the cerebral cortex. These varied in size from slightly visible to the naked eye to 1-1½ cm. across. They were largely confined to the gray matter. The largest metastatic lesion, however, was in the pons where a nodule measuring 1.8 cm. across and showing recent hemorrhage was present. This chiefly involved the left side of the pons. In explaining the thrombocytopenia noted clinically, this was interpreted as idiopathic thrombocytopenic purpura, which has been reported in association with malignant tumors."

FINAL DIAGNOSIS: Terminal bronchiolar carcinoma, apparently primary in right lung with spread throughout both lungs and diffuse metastases to brain. ★★★

1190 North State St.

Radiologic Seminar VII: Hypertrophic Osteoarthropathy

WILLIAM M. FANT, M.D.
Jackson, Mississippi

HYPERTROPHIC OSTEOARTHROPATHY has been defined as a syndrome consisting of clubbing of the digits and ossifying periostitis, occurring as a manifestation of an underlying major visceral disorder, usually intrathoracic in location.

Pathologically, the clubbing of the digits appears to be due to hypertrophy of the soft tissues and infiltration by chronic inflammatory cells. The bone changes consist of thickening of the periosteum, infiltration by chronic inflammatory cells, and subperiosteal accumulation of osteoid which later ossifies.

The exact mechanism which provokes the changes of hypertrophic osteoarthropathy has not been proven. Clubbing of the digits occurs more frequently and is more commonly associated with congenital heart disease and cirrhosis of the liver. The periosteal changes are more frequently associated with the chronic suppurative lung diseases and lung cancer. Hypertrophic osteoarthropathy may appear a few months to many years after the onset of the primary disease process and in the early stages it is usually asymptomatic, being detectable only by x-ray. The more advanced stages are frequently accompanied by aching pain and tenderness along the shafts of the long bones and in joints. The radiographic appearance of the periosteal changes varies from a thin line of increased density parallel with the cortical surface of the long bones to thick, laminated, palisaded layers of new periosteal bone. The laminated appearance of the reactive bone suggests periods of remission and exacerbation. In adults the radiographic findings are fairly characteristic and usually the underlying disorder is apparent. In childhood osteomyelitis, avitaminosis, syphilis, and sickle cell disease may produce somewhat similar patterns.



Figure 1. AP radiograph of the forearm showing the marked periosteal reaction typical of advanced hypertrophic osteoarthropathy.

Occasionally a patient will present with pain in the legs and joints. X-rays of the extremities will show the characteristic periosteal changes and after a complete work-up an otherwise silent major disorder will be discovered, most commonly a bronchogenic carcinoma. The following is a case report of such a patient.

CASE REPORT

A 44-year-old Negro male was admitted with a chief complaint of pain and moderate swelling in the legs and joints which had its onset a year prior to admission. Physical examination revealed swollen, moderately tender joints and pitting

Sponsored by the Mississippi Radiological Society.
From the Department of Radiology, University of Mississippi School of Medicine.

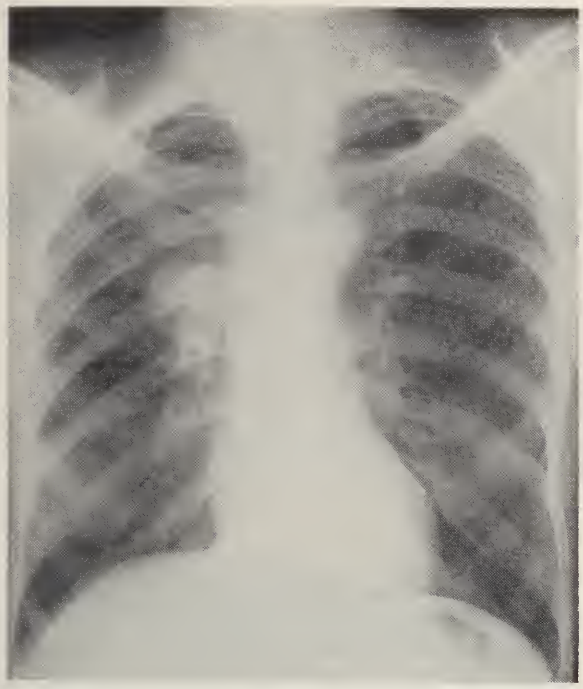


Figure 2. Locally asymptomatic bronchogenic carcinoma adjacent to right hilum discovered on routine chest radiograph.

edema of the legs. The lungs were clear to auscultation and percussion. The heart was thought to be enlarged. A urinalysis revealed the presence of sugar. The working diagnosis was mild diabetes mellitus, congestive heart failure, and probable rheumatoid arthritis. X-rays of the extremities revealed the characteristic changes of hypertrophic osteoarthropathy (Figure 1). A subsequent chest x-ray (Figure 2) demonstrated the presence of a soft tissue mass in the region of the right hilum. At thoracotomy a squamous cell carcinoma was found and removed. Follow-up films of the extremities in four months showed definite regression of the periosteal changes (Figure 3).

2500 North State Street

REFERENCES

1. Flavell, G.: Reversal of Pulmonary Hypertrophic Osteoarthropathy by Vagotomy, Lancet 1:260-262 (Feb. 11) 1956.
2. Gall, E. A.; Bennett, G. A.; and Baver, W.: Generalized Hypertrophic Osteoarthropathy: Pathologic Study of Seven Cases, Am. J. Path. 27:349-381 (May-June) 1951.
3. Kline, E. M.: Hypertrophic Osteoarthropathy, Am. J. Roentgenol. 54:519-523 (November) 1945.
4. Medlin, V. L.: Hypertrophic Osteoarthropathy in Children, Radiology 74:414-419 (March) 1960.



Figure 3. An AP radiograph of the forearm four months after surgical resection of the bronchogenic carcinoma, showing marked resolution of the periosteal reaction.

THE AMBIVALENT AMERICAN

People are peculiar, observes one medical philosopher. They want the front of the airliner, the back of the church, and the middle of the road.



Polio Immunizat

On Sept. 15 after a day-long conference, Surgeon General Luther L. Terry of the U. S. Public Health Service recommended that Sabin Type III not be administered to adults except in emergencies. The PHS recommendation was based on the possibility that some few cases of Type III poliomyelitis may have been caused by the Type III vaccine. Most of the cases occurred in adults. Following the Surgeon General's announcement, a number of communities called off mass immunizations. Among these were Adams and Jackson Counties, Mississippi, where civic, business, and medical groups had cooperated to make approaching community programs a success.

Dr. A. L. Gray, executive officer of the Mississippi State Board of Health, is a member of the PHS Special Advisory Committee on Oral Poliomyelitis Vaccine which met with Surgeon General Terry prior to his Sept. 15 announcement. In between the committee's numerous fall meetings, JOURNAL MSMA *took the opportunity to ask Dr. Gray these pertinent questions.*

Q Dr. Gray, what is your opinion of the apparent conflict between Sabin polio vaccine and Salk vaccine?

A Regardless of the apparent conflict between the chief proponent of Salk vaccine and the chief proponent of Sabin vaccine, both are effective. Salk has been considered safe ever since the Cutter Laboratory incident was settled and Sabin is most probably safe. The duration of protection on both is as yet unanswered completely. We must not overlook the fact that under impact of Salk vaccine there has been at least an 85 per cent reduction in paralytic polio in the country as a whole as well as in Mississippi.

Q In your capacity as a state public health officer and a physician, what do you think is the present status of Sabin vaccine?

A The Public Health Service Special Advisory Committee on Oral Poliomyelitis Vaccine, of which I am a member, considers Type III Sabin vaccine to be of at least some risk to adults at the present but of no risk to children. We are not particularly worried about Types I and II. The committee has recommended that local communities proceed with planned mass vaccination campaigns using Types I and II of the oral vaccine for all members of the population and Type III for children.

Q There have been various figures cited as the number of persons contracting polio after receiving the Sabin vaccine. Could you give us an official number?

A To date the committee has found 15 cases of paralytic polio which are compatible with the administration of vaccine. Others are constantly being considered. The important thing is that most of these patients were in the age range of 16 to 52 years with the higher age group, 40-50, being most commonly involved. All of these cases had Type III polio. The predominance in the older age group would never occur in a natural outbreak of poliomyelitis. This adult age distribution was one of the factors suggesting a vaccine relationship. Type III has not shown any inclination to involve children.

Q Could you explain this predominance in the adult age groups since poliomyelitis is primarily considered a childhood disease?

A Not at the present. One of the things the committee has attempted to figure out is this shift to the upper age group. To date there is no scientific information on this phenomenon.

here Do We Stand?

Interview with A. L. GRAY, M.D.
Executive Officer
Mississippi State Board of Health

Q Do you foresee mass immunization campaigns for Mississippi in the near future?

A On the basis of the present status which is changing from week to week, I would like to see Mississippi mark time until early spring. By then we may be able to re-evaluate the mass campaigns on the basis of new information. This opinion is based on the fact that there was little poliomyelitis in Mississippi during the past year.

Q Do you anticipate that the Mississippi State Health Department will switch to Sabin vaccine in the near future?

A There is no immediate prospect of the Health Department—state or county—changing from the use of Salk vaccine. We want to increase the administration of Salk, however, in all quarters and particularly in the age groups under 5-years.

Q In mass immunizations, is there danger of unimmunized family members contracting polio from those who have received the vaccine.

A This is one of the things we are watching. We know, of course, that the vaccine-type attenuated virus can be isolated from the stool of vaccinated persons. However, there is not yet enough evidence of actual transmission of polio to be incriminating. There are two cases among the committee's records involving household contacts of polio. The virus isolated in one of these cases was very much like the vaccine type given. However, in a big program, coincidental things are bound to happen.

Q Finally, Dr. Gray, could you tell us the status of the advisory committee? Do you anticipate a heavy schedule of future meetings?

A This is going to be an ongoing evaluation. The problem is not settled yet.

Polio was first accurately described in 1789 by a British physician, Michael Underwood. Prior to 1900 paralytic polio was reported comparatively rarely in the United States, but after the turn of the century it became increasingly common, reaching epidemic proportions by 1915. About six cases per 100,000 population were reported annually in the period from 1910 to 1914. This rose to 41 in 1916, although one authority puts it lower, at 28.5. The statistics continued to grow worse and in 1952, a rate of 37.2 cases per 100,000 matched the 1916 epidemic.

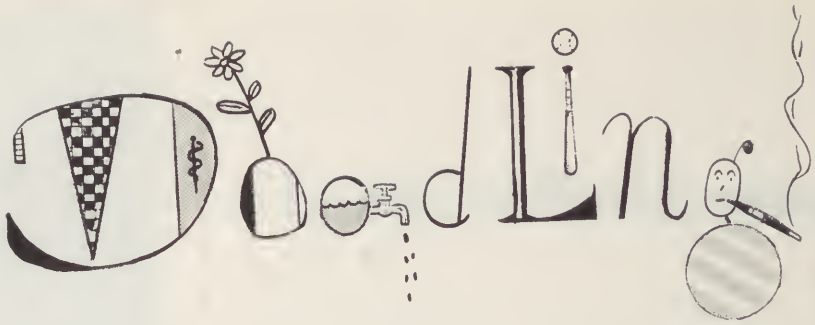
With the licensing of Salk poliomyelitis vaccine for mass production in April 1955, the largest vaccination program in the history of the United States began. Despite the setback received when some few children receiving vaccine produced by Cutter Laboratories contracted polio, about 150 million doses of Salk vaccine had been administered by August 1957. By September 1961, 77 per cent of the population under 40 years of age had received at least one inoculation, about 67 per cent had received three or more inoculations, and 40 per cent had received the booster inoculation.

A license for Type I oral polio vaccine was granted in August, 1961, followed in October by the license for Type II. Type III of the Sabin vaccine was licensed in March 1962. The U. S. Public Health Service estimated that by August 1962, 19 million persons had received Type I oral vaccine; 6 million had received Type II, and 13 million Type III.

Since the 1955 licensing of the Salk vaccine, the polio rate has declined year by year. Last year, 1961, was the best year since 1938. New cases of all types of polio totaled 1,327 for the nation, a decline from 8,567 in 1959 and a significant drop below the annual average of 38,727, which was set in the pre-vaccination years from 1950 through 1954.

Through the first 36 weeks of 1962, 500 cases of polio were reported, compared with 682 through the same period for 1961. During the same length of time in 1959, almost 5,000 cases were registered.

In Mississippi there were 45 cases of polio in 1961 and to date in 1962 there have been six reported cases.



BETTY M. SADLER

Jackson, Mississippi

DOODLING IS ART FOR IDLERS. It's what you do while the operator finds the party or the chairman reads his biannual report. The essence of the thing is nonconcentration. Once you think about what you're doing, it's no longer doodling—it's most probably not art, but it's definitely not doodling.

In the past, magazines desperate for a new angle on old celebrities have made sort of a game out of analyzing their doodles. This was done in an arbitrary fashion according to set symbols, i.e., draw hearts and you're lonely, wreaths and you're sad, heroic figures and you're egotistical.

Doodles have also been used in psychology for determining educational levels in children, and some researchers have experimented with them in psychoanalysis.

During an interview with Dr. Floy Jack Moore, professor and chairman of the Department of Psychiatry, University of Mississippi School of Medicine, we asked him—what about doodles? Dr. Moore noted that two things limit the use of doodles in psychiatry. One is the ability of the patient to put his thoughts on paper, and the other is the tendency of the analyst to carry over impressions from his usual skills to the interpretation of the doodles, he said.

However, observed Dr. Moore, trained occupational therapists, not already prejudiced by the psychiatrist's knowledge, might draw useful conclusions from the progressive drawings of a patient. He also observed that art therapy has long played an important role in the treatment of the mentally disturbed.

Editorial Assistant, JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION.

Actually it doesn't take a psychiatrist or a psychologist to interpret doodles, noted Dr. Moore. Doodling does not obey the usual rules, he said, but should come to have some meaning after it has been studied. Most anyone studying it over a length of time should come to some valid conclusions, he said.

Doodling, Dr. Moore pointed out, tells a story in a symbolic way. To understand it, he said, the symbols must be learned. Although not all symbols represent the same thing to all persons, he noted, there are some things that are pretty universal. Trees and houses, which children draw a lot, seem to represent security, he said.

When we asked Dr. Moore just what his pet doodle was, he said, "I never doodle—I can't even write legibly." Finally, however, he admitted that he had a penchant for doodling down key words in the course of telephone conversations or interviews.

As our talk was drawing to a close, we explained to Dr. Moore our sudden interest in the field of doodling. For the past five years a top secret MSMA file has been growing fatter and fatter until it seemed unfair not to share its interesting contents. Starting about 1957 the staff has combed the conference room for doodles after each committee or council meeting. Some were fished out of the wastebasket and others retrieved from under Coke bottles and coffee cups, but all were smoothed out and filed away.

Looking over the doodles, Dr. Moore commented that we had structured the situation as carefully as some of the researchers in the field. "By placing out pads and pencils in a situation where there is a lot of listening to be done—and



1



2



3



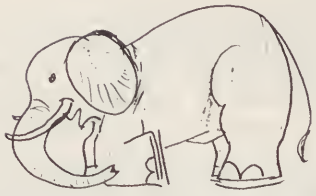
4



5



6



7



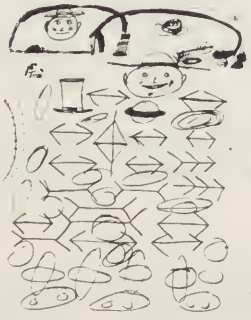
8



9



10



11



12

some of it less-than-captivating, you practically insured that committee members would doodle," he said. He guessed that the most prolific drawers were nonsmokers, restless, overactive, not coffee or Coke drinkers, and maybe dieters.

On the preceding page we have reproduced some of the best doodles. They fall into several natural categories which pretty well coincide with the research done in this field. Dr. J. G. Auerbach,[1] one of the first writers on this subject, found that self-portraits outweighed all other topics in frequency. We found about the same thing. Figures 1-4 are portraits—self and possibly otherwise.

Dr. Auerbach also noted that self-portraits are symbolic and therefore may appear in any guise from that of animals to inanimate objects. Since we couldn't decide whether Figure 5 was a self-portrait or an elephant, we put it between the two groups. We have absolutely no explanation for the predominance of pachyderms in the doodles, but all totaled we had one horse, two birds, a number of what-cha-ma-call-its, and lots and lots of elephants. Some of these doodles were drawn during the 1960 presidential campaign, which may be a partial explanation.

The relationship of the analyst and analysis cropped up quite frequently in the doodling of Dr. Auerbach's patients. Naturally we didn't find any of this, but the artist in Figure 8 had less than kind thoughts toward MSMA. Notice the "Birnam wood to Dunsinane" configuration in the foreground.

Accepting Dr. Moore's theory that trees usually represent security, the drawer in Figure 9 seems to have decided that he can do with a little less.

Figure 10 bears out another of Dr. Moore's theories, i.e., that the subject matter under discussion probably has a relationship to what is drawn. This doodle was drawn during a meeting of the Committee on Maternal and Child Care. We're somewhat at a loss to explain the drowning figure at the bottom of this doodle, but please note that the drowner is a man and the boat captain a woman.

Figures 11 and 12 show a predominance of geometrical patterns which also cropped up in Dr. Auerbach's studies.

Both Dr. Moore and Author Auerbach noted that most people doodle under some circumstances —although the circumstances may vary from person to person. Those who never doodle under any circumstances are usually repressed persons, they said. If this be so, MSMA committees are among the most unrepressed groups in the world. But as Dr. Moore observed—this is likely to change in the very near future. ★★★

735 Riverside Drive

REFERENCES

1. Auerbach, J. F.: Psychological Observations on "Doodling" in Neurotics, J. Nerv. & Ment. Dis. 111:304-332, 1950.

TIME'S EXPIRED

The patient's wife was obviously concerned. Said she to the psychiatrist: "My husband suffers from the delusion that he is a parking meter. Won't you please help him?"

Gently, the doctor replied, "Of course, but first I must ask him some questions."

"Really, doctor, that's quite impossible," she observed. "How can you expect him to answer with all those dimes in his mouth?"

—George Carlin in *Parade*

MEETINGS

NATIONAL AND REGIONAL

American Medical Association, Clinical Meeting, Nov. 25-28, 1962, Los Angeles, Calif. F. J. L. Blasingame, Executive Vice President, 535 N. Dearborn St., Chicago 10, Ill.

American Academy of General Practice, April 1-4, 1963, Chicago, Ill. Mr. Mac F. Cahal, Executive Director, Volker Blvd., at Brookside, Kansas City 12, Mo.

Southern Medical Association, Nov. 12-15, 1962, Miami Beach, Fla. Mr. Robert F. Butts, Executive Director, 2601 Highland Ave., Birmingham 5, Ala.

STATE AND LOCAL

Mississippi State Medical Association, May 13-16, 1963, Biloxi. Mr. Rowland B. Kennedy, Executive Secretary, 735 Riverside Drive, Jackson.

Mississippi Chapter, American College of Surgeons, Nov. 16, 1962, Heidelberg Hotel, Jackson. Edward C. Hamilton, 14th St. and 25th Ave., Gulfport, Secretary.

Amite-Wilkinson Counties Medical Society, First Tuesday March, June, September, December. S. E. Field, Centreville, Secretary.

Central Medical Society, First Tuesday Monthly, 6:30 p.m., Robert E. Lee Hotel, Jackson. George E. Gillespie, 514-A East Woodrow Wilson Drive, Jackson, Secretary.

Claiborne County Medical Society. D. M. Segrest, Port Gibson, Secretary.

Clarksdale and Six Counties Medical Society, Second Wednesday March and November, 2:00 p.m., Clarksdale. Whitman B. Johnson, Jr., 645 Evelyn Ave., Clarksdale, Secretary.

Coast Counties Medical Society, First Wednesday March, June, September, and November. Charles N. Floyd, 1412-23rd Ave., Gulfport, Secretary.

Delta Medical Society, Second Wednesday April and October. Howard A. Nelson, 308 Fulton St., Greenwood, Secretary.

DeSoto County Medical Society, Second Thursday January, April, July, and October, 1:00 p.m., Hernando Motel Cafe, Hernando. L. L. Minor, Route 9, Memphis 9, Tenn., Secretary.

East Mississippi Medical Society, First Tuesday February, April, June, August, October, and December. Hugh S. Rayner, Jr., 1216-21st Ave., Meridian, Secretary.

Homochitto Valley Medical Society, Fourth Tuesday Monthly, 7:30 p.m., Natchez Country Club, Natchez. W. T. Colbert, Natchez General Hospital, Natchez, Secretary.

North Central District Medical Society, Second Wednesday March and September. Robert B. Townes, Jr., 1196 Mound St., Grenada, Secretary.

Northeast Mississippi Medical Society, Second Tuesday March, June, September, and December, Tupelo. Thomas W. Wesson, 421 Main St., Tupelo, Secretary.

North Mississippi Medical Society, First Thursday January, April, and October, Oxford. Marcus E. Morrison, 512 Van Buren Ave., Oxford, Secretary.

Pearl River County Medical Society, Second Monday March, June, September, and December. Samuel O. Massey, Jr., 220 E. Canal St., Picayune, Secretary.

South Mississippi Medical Society, Second Thursday March, June, September, and December. Thomas F. Puckett, 715 Arledge St., Hattiesburg, Secretary.

Tri-County Medical Society, Second Tuesday March, June, September, and December. A. V. Beacham, Magnolia, Secretary.

West Mississippi Medical Society, Second Tuesday January, April, July, and October, 7:00 p.m., Old Southern Tea Room, Vicksburg. Tom H. Mitchell, The Street Clinic, Vicksburg, Secretary.



The President Speaking

'Socialized Statistics'

C. P. CRENSHAW, M.D.
Collins, Mississippi

PEOPLE IN THE UNITED STATES aren't as healthy nor do they live as long as people in Sweden and Great Britain." This was the thesis of a paper read at the recent meeting of the American Sociological Association, hardly a fit companion for conservative company. The charge, a stock expression of some labor leaders, is distilled from statistical hogwash, brewed by a welfare state recipe, and served sugar-coated to the gullible.

Comparison of a nation's overall health on a baseline of life expectancy is about as valid as a duffer's claiming to be a par golfer based on a consecutive birdie and bogie when the day's card reads 110! What really is being compared is population difference. Sweden and England have small, stable, homogeneous populations whereas the United States is a vast mixture of virtually every nationality.

What *can* be proved statistically is that a Swede living in Minnesota lives longer than a Swede in Sweden and that Mexicans do better in New Mexico than south of the border. And the U. S. death rate from automobile fatalities is many times that of any European country because we have many more cars. This, obviously, is a matter of economics and not medicine.

On the other hand, communicable disease is entirely a medical problem and the fact is that the U. S. mortality rate in this area is well below those of Sweden and England. In like vein, international statistics on infant mortality are meaningless because of different definitions of live and still births. Until recently, even U. S. authorities couldn't agree among themselves.

So the whole matter of insinuating that longer life span and lower infant mortality are associated with socialized medicine which England and Sweden have is just that, an insinuation. The rate of longevity increase in England is no different now than before socialization in 1947 and may have actually declined. ★★★

JOURNAL OF THE
MISSISSIPPI STATE
MEDICAL ASSOCIATION

Volume III, Number 11

November 1962

EDITORIALS

Scoreboard on the Specialties

I

SPECIALIZATION IS MEDICINE'S wonderful and awesome expression, a holy grail to some and a red flag to others. And while the annals of the profession are replete with the writings of those cussing and discussing the subject, almost nobody now advocates a system of monolithic medicine with the single physician doing all things for all afflictions. By specializing, says the American Medical Association, which means segregating patients according to their age, disease, condition, or other factors, medicine does manage to keep abreast of its own discoveries and revelations.

On the other hand, the same utterance continues, it would perhaps be ideal if this were not so—if all doctors could be all things to all patients. Specialization's spokesmen therefore find justification in necessity.

"In a world of complicated specialties, whether it be engineering, farming, teaching, or what have you," says AMA's Dr. Walter S. Wiggins, "medicine could not be truly modern without its specialties."

A hearty amen comes from Dr. Paul M. Gross, vice president of Duke University, who believes that specialization "has been a constant and prominent ingredient of all civilizations."

II

But AMA's contention does not relegate the family physician to the museum of medical history. Rather, a point is made that specialization really places a greater professional burden on the general practitioner than he bore when there were no specialists. Today, the family doctor, who ordinarily isn't thought of as a specialist, is, in fact, a basic specialist, continues the statement.

So by no means is this discussion pro-specialist and con-GP or *vice versa*. Conversely, it's nothing more than a current reading of the gage upon which medicine's diversified—yet unified—endeavor is registered. And neither by implication nor assertion is any other idea or concept advanced. In the final analysis, the arguing is for some but the healing is for all.

III

Somebody has waggishly said that there are in America today as many types of specialists as there are parts of the body, inside and out. For formal purposes, there are 33 specialties recognized by the American Medical Association, including general practice. The other 32 are:

Administrative medicine, allergy, anesthesiology, aviation and space medicine, cardiovascular diseases, child psychiatry, colon and rectal surgery, dermatology, forensic pathology, gastroenterology, general preventive medicine, general surgery, internal medicine, neurological surgery, neurology, obstetrics and gynecology, occupational medicine, ophthalmology, orthopaedic surgery, otolaryngology, pathology, pediatrics, pediatric allergy, pediatric cardiology, physical medicine and

rehabilitation, plastic surgery, psychiatry, public health, pulmonary diseases, radiology, thoracic surgery, and urology.

It's an impressive scoreboard because it reflects the advance of medical science and the work of all physicians. And if there are ills in the application and use of the system, then there are mortal aspects to be considered. Science and the unquestioned competence of the American medical profession are not issues at controversy.—R.B.K.

Don Juan, M.D.

The sensationally successful six-orbit space flight by Walter Schirra was ironically preceded by publication of a survey in *Parade Magazine* on how astronauts rate with women. The study was prompted when the editors of the mass circulation Sunday supplement wondered how disciples of the newest profession rated in the world's oldest sweepstakes, mundanely stated, love.

The findings were absolutely astonishing—at least to the editors of *Parade.*

Despite the fact that the *London Daily Mirror,* on its women's page, said that American astronauts were the "living end," the space heroes ran a poor third in who rates how with women.

And who was first? The doctor of medicine, who copped a full 25 per cent of all votes cast. Second spot went to writers and after the astronauts in third came, in descending order, scientists, athletes, engineers, and architects. They were followed by airline pilots, executives, detectives, newspapermen, teachers, attorneys, politicians, lifeguards, diplomats, sailors, truck drivers, and mechanics. Forest rangers brought up the rear.

All of which probably proves just one thing: the *London Daily Mirror* may know its tea and crumpets but not sex appeal.—R.B.K.

The Case of the Nibbled Necklace

Schopenhauer's "frozen music" of feminine beauty is striking a slightly dissonant chord which is not without serious overtones affecting milady's good health. The colorful, exotic beads made into necklaces and bracelets of beans, seeds, berries, and other miscellaneous dried vegetables—now one of the hottest item on the costume jewelry market—*can* make her ill and *may* cost her life.

The menace to the nervous necklace nibbler and to any inquisitive baby is the black-dotted, red jequirity bean, *Abrus precatorius,* more often than not a flashy component of the inexpensive adornments. The sneaky little seed, sometimes called the rosary pea or crabseye bean, is rich in abrin, the extremely poisonous alkaloid, chemically known as methyl-amino indolyl propionic acid. Although the literature concedes some medicinal value to the substance, it's a dangerous decoration at best.

The Food and Drug Administration has embargoed stocks of the vegetable jewelry in the east and the U. S. Public Health Service has alerted poison control centers of the hazard. Ingestion of just one jequirity bean can be fatal if the hard shell is pierced to release the contents. Where strung in a necklace or bracelet, this is usually the case.

FDA and USPHS officials are proceeding with caution because existing laws may be inadequate for prosecution of those selling the deadly stuff. The Federal Hazardous Substance Act permits seizure of poisons not adequately labeled, but it apparently applies only to packaged poisons. One



Copyright 1962, Mississippi State Medical Association

source is of the opinion that FDA would be powerless to act if a merchant were so candid as to advertise "poison necklaces for the woman who has everything"—that apparently isn't against the law. State law, however, in most cases can successfully be applied to prevent sale of the lethal baubles.

A timely warning to patients may help avert tragedy.—R.B.K.

We Want *Your* View!

Whether you read your copy of JOURNAL MSMA in Adams County, Mississippi, or in Zanzibar (yes, we have foreign subscribers over the free world), the editors want your opinion of it. A readership study will be made in December after publication of the final number in the present volume.

And the demand on your time? We'll need about two minutes of it!

The survey form will be just one page, objective response, ready to check, fold, seal, and mail—with postage prepaid. It will be in your mail the first week in December.

Won't *you* please be the first to reply?—R.B.K.

LETTERS

SIRS: I am delighted with the fine presentations which were presented in your September Journal. Drs. Strughold, Stapp, and Simons always do an outstanding job, and I think these people are experts. They are the most up-to-date documents which have been written.

O. K. NIESS
MAJOR GENERAL, USAF, MC
SURGEON GENERAL
DEPARTMENT OF THE AIR FORCE

State Morbidity Reported Through Sept. 28

The Mississippi State Board of Health reports the following occurrence of morbidity for 1962 through the 40th week of the year, ending Oct. 5, 1962. Case totals reported are shown opposite the disease condition.

Tuberculosis, pul.	487
Tuberculosis, O.F.	29
Anthrax	1
Typhoid fever	5
Salmonella infections	20
Salmonella food poisoning	3
Brucellosis	1
Dysentery	
Amebic	37
Bacillary	42
Dysentery, NOS	1
Food poisoning, NOS	3
Septicemia, Strep.	4
Septicemia, Staph.	53
Leptospirosis	2
Toxoplasmosis	1
Staphylococcus infection	7
Poliomyelitis	4
Diphtheria	7
Meningococcus infection	
Meningitis	14
Meningococcemia	3
Meningitis, O.F.	54
Other complications of smallpox vaccination	3
Polyneuritis	2
Tularemia	2
Tetanus	10
Encephalitis, infectious	23
Mononucleosis, infectious	63
Trichinosis	1
Diarrhea of newborn	7
Hepatitis, infectious	683
Hepatitis, serum	1
Helminthic infections	
Hookworm	885
Ascariasis	308
Strongyloides	41
Moniliasis	1
Actinomycosis	1
Other cestode infest. (HN)	2
Histoplasmosis	26
Other fungus infections	1
Streptococcus infections	
Scarlet fever	204
Strep throat	2,672
Malaria	1
Rheumatic heart	3
Rheumatic fever	3
Puerperal sepsis	1
Pertussis	78
Measles	2,735
Chickenpox	744
Mumps	370
Influenza	11,309
Gonorrhea	4,121
Syphilis	
Early	178
Late	259



The following physicians have been elected to membership by their respective component medical societies in the Mississippi State Medical Association and the American Medical Association:

BAXTER, MALCOM DAVIS, JR., Hernando. Born Memphis, Tenn., March 10, 1937; M.D., University of Mississippi School of Medicine, Jackson, 1961; interned John Gaston Hospital, Memphis, Tenn., one year; elected Aug. 2, 1962, by DeSoto County Medical Society.

BOSCO, JULIUS SISTO, Pascagoula. Born New York, N. Y., April 6, 1929; M.D., New York Medical College, New York, 1953; interned Metropolitan Hospital, New York, one year; Ob-Gyn residency, Charity Hospital of Louisiana, New Orleans, three years; captain, U. S. Air Force, two years; elected Nov. 8, 1961, by Coast Counties Medical Society.

ENGER, DANIEL JOHN, Pascagoula. Born St. Louis, Mo., April 12, 1928; M.D., St. Louis University School of Medicine, Mo., 1954; interned St. Louis City Hospital, Mo., one year; surgical residency, St. Louis City Hospital, Mo., two years; orthopedic surgery residency, St. Louis University School of Medicine, Mo., two years; member of the Military Surgeons of the United States; Lieutenant Commander, U. S. Naval Reserve, two years; elected Nov. 8, 1961, by Coast Counties Medical Society.

HOPKINS, LLOYD GERALD, Oxford. Born Walnut, Miss., Jan. 29, 1930; M.D., University of Mississippi School of Medicine, Jackson, 1961; interned John Gaston Hospital, Memphis, Tenn., one year; member of the Mississippi State Pharmaceutical Association; elected July 28, 1962, by North Mississippi Medical Society.

KULUZ, MATTHEW FRANCIS, Pascagoula. Born Biloxi, Miss., Jan. 26, 1933; M.D., St. Louis University School of Medicine, Mo., 1958; interned Charity Hospital of Louisiana, New Orleans, one year; pediatric residency, Charity Hospital of Louisiana, New Orleans, two years; elected Nov. 8, 1961, by Coast Counties Medical Society.

TAQUINO, MAURICE AUGUST, Biloxi. Born New Orleans, La., Nov. 8, 1925; M.D., Louisiana State University School of Medicine, New Orleans, 1951; interned Charity Hospital of Louisiana, New Orleans, one year; general surgery residency, VA Hospital, New Orleans, La., one year; general surgery residency, Charity Hospital of Louisiana, New Orleans, four years; member, Acrospace Medical Association; elected Nov. 8, 1961, by Coast Counties Medical Society.



JOHN R. BISE of Jackson has announced the association of KENNETH P. PITTMAN in a practice limited to obstetrics and gynecology. Dr. Pittman received his medical degree from Tulane University School of Medicine, interned at Charity Hospital in New Orleans, and completed his residency at the University of Pittsburgh School of Medicine.

FRANK S. HILL of Grenada, JAMES CLAUDE MCGEHEE of Bude, FRANKLIN G. RILEY of Meridian, and HENRY G. WALDROP of Booneville were among MSMA members honored by the University of Tennessee Medical Units at commencement exercises Sept. 23. The physicians were presented with a Golden "T" certificate in recognition of the services rendered to their communities during the half-century since their graduation.

I. C. KNOX, who has served Vicksburg and the surrounding area for over 50 years, was honored Sept. 20 by the Vicksburg Rotarians for his work in the community. The program, held during the club's regular meeting, consisted of incidents in Dr. Knox's life related in story form.

ELISE RUTLEDGE was honored by the McComb Business and Professional Women's Club during National Business Women's Week, Oct. 7-13. Theme for the week was "Leadership—A Dimension in Democracy," and the club honored three local career women who exemplified this theme.

WILLIAM F. SISTRUNK has joined CHARLES E. WARD, JIM G. HENDRICK, NOEL C. WOMACK, JR., and WEIR CONNER in the Children's Medical Group in Jackson.

Book Reviews

Clinical Obstetrics. By Benjamin Tenney, M.D., Clinical Professor of Obstetrics and Gynecology, Harvard Medical School, and Brian Little, M.D., Associate in Obstetrics and Gynecology, Harvard Medical School. 440 pages with illustrations. Philadelphia: W. B. Saunders Company, 1961. $8.50.

This book is well organized and presented in an easy readable manner with good chapter summaries. However, the subject matter is approached in a superficial fashion in most cases, and the management of toxemia as recommended by the authors is out-of-date and inadequate. They rely entirely on the old program of heavy sedation with morphine and magnesium sulfate. No useful information on the use of the hypotensive drugs is given. The opinions expressed in toxemia management are too dogmatic to be based on the small source of clinical material that was given as a basis for these statements, that is 79 cases of preeclampsia and 7 cases of eclampsia.

The coverage of other problems, such as analgesia and anesthesia, cesarean section, and prolonged labor are presented clearly and along generally accepted lines. The chapter on induction of labor covers this procedure from a practical viewpoint.

In general, this book would probably be better placed in the category of a synopsis of obstetrics with limited value as a text for the serious student of obstetrics or the busy physician who seeks detailed up-to-date information.

JOHN E. LINDLEY, M.D.

A Study of Psychophysical Methods for Relief of Childbirth Pain. By C. Lee Buxton, M.D., Department of Obstetrics and Gynecology, Yale University School of Medicine. 116 pages. Philadelphia: W. B. Saunders Company, 1962. $4.75.

As the title indicates, this is a study, or review, of the various techniques employed, both in America and abroad, for psychophysical relief of pain during parturition. The author is quite frank in discussing the pros and cons of each method, but does not outline any specific technique. Instead, he dwells on the differences of opinion concerning the motivation for establishing the programs in the various countries and hospitals visited. For instance, he notes: "One opinion concerning successful cases (in France) was rather interesting in that the teaching was said to consist of training patients not to complain regardless of the amount of pain they had."

The various techniques, from Grantley Dick Read in 1933, to the present, are well presented, including hypnosis. As would be expected, the author discusses the tendency to combine procedures to suit individual problems and different communities. This book, therefore, is not intended to do more than present each method in a concise fashion. The obstetrician must then evaluate each technique in the light of his knowledge before deciding whether or not to delve more deeply into its adaptation to his own practice.

DAVID M. SWITZER, JR., M.D.

Domestic Journals

Hypnosis in Psychotherapy Today. Ralph M. Kaufman: A.M.A. Arch. Gen. Psychiat. 4:30-39 (Jan.) 1962.

Dr. Kaufman furnishes the following subtitle to his paper: "Anachronism, Fixation, Regression, or Valid Modality?" He gives an extremely complete, interesting, and condensed history of hypnosis from its uncritical use by medicine men and witchdoctors through the concept of the trance state as a result of some sort of magnetic influence flowing from the operator to the subject and holding him in some sort of mental bondage to the later concept of the trance state and related phenomena as manifestations of response to suggestions from the hypnotist to a subject who has a heightened degree of suggestibility.

He then calls attention to Pavlov's description of hypnosis and sleep as similar states and Freud's observations that the development of hysterical symptoms and their nature seem to have a relationship to hypnotic phenomena. The author notes how Ferenczi drew attention to the regressive phenomena in hypnosis, the infantile relationship of the subject to the operator, and to the fact that the subject himself played an important role in hypnosis which was an interaction between two

persons involving different sorts of gratification on the part of the subject and the operator (love and fear, aggression and submission, and satisfaction of passive needs). He notes that Freud made many of the original observations from which are based a current attention which is being paid to the phenomenon of "transference" in hypnosis.

The work of Gill and Brennan is noted. They refer to the changes in relationship of the subject to the hypnotist as being of an infantile nature. Freud, Ferenczi, and others saw this relationship in terms of transference. They point out that under hypnosis resistence to the expressing of repressed material can be temporarily suspended. This material then becomes available, often with dramatic reliving of repressed traumatic experiences.

The hypnotised person's relationship to reality is discussed with mention of how certain discriminations, judgments, and perceptions seem to be handed over to the hypnotist so that what he states is accepted uncritically while other aspects of reality are behaved toward with the usual discrimination.

The author points out that the use of hypnosis for the purpose of recovering recollections of repressed traumatic experiences and ultimately bringing these to awareness is useful in shortening the course of psychotherapy and is of assistance in a more lasting sort of treatment than one can expect from employing hypnosis simply to suggest that a symptom will be abandoned. He speaks also of the use of hypnosis in urgent or emergency conditions where the hypnotic state is presented as a form of relaxation, and he cites instances in which it has been used for relief of status asthmaticus. He appears to agree with Gill and Brennen who he says share with Freud the view that hypnosis in psychotherapy is not more useful in any one diagnostic category than in another.

He points out that there has been a greatly renewed interest in the use of hypnosis in psychotherapy and like other treatment measures hypnosis is most effective in the hands of someone skilled in its use. Further he points out that in the hands of persons unskilled in the employment of hypnosis the procedure may be quite hazardous. This paper is an attempt to highlight some of the recent developments in our understanding of the phenomonology and dynamics in hypnosis in the light of psychoanalytic psychology. It is readable and contains an extensive set of references on the subject.

OSCAR E. HUBBARD, M.D.

Committee on Nursing Sets Objectives

AMA's Committee on Nursing has established six objectives in its continuing program of liaison and communication between the two major health professions.

As reported in the August 4, 1962, issue of the *Journal of the American Medical Association,* these objectives include:

1. To expand and strengthen liaison activities between organizations representing the medical and nursing professions at the national, state, and local levels.

2. To study and report to the medical profession on current practices and trends in nursing and on developments among nursing auxiliary personnel.

3. To stimulate, initiate, and, where feasible, support research in areas pertinent to the nurse-physician relationship in professional practice.

4. To offer advisory services to both professions on interprofessional matters.

5. To provide support and assistance to the nursing profession and its nonprofessional auxiliary personnel in their efforts to maintain high standards.

6. To encourage physicians to accept invitations to serve on nursing school faculties.

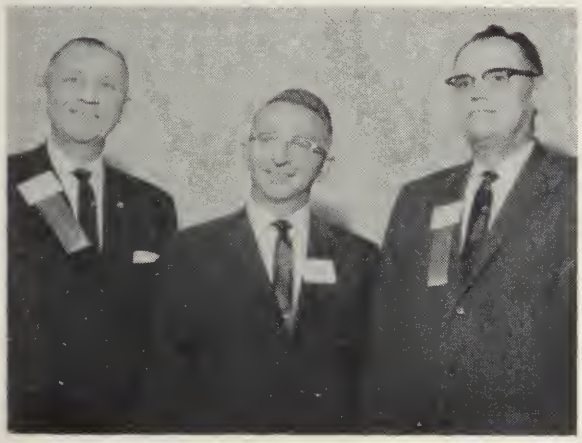
Prepared by the six-man committee, the article concluded, "If the medical and nursing professions are to make the fullest use of their joint potential, they must have not only a common denominator of interest in the patient and a comparable body of knowledge, but also the kind of relationship that derives from a deeper appreciation of, and respect for, each other as allies working toward the same goals."

DEATHS

MELVIN, EDMUND ARTHUR, Gulfport. M.D., University of Tennessee College of Medicine, Memphis, 1938; interned Charity Hospital of Louisiana, New Orleans, one year; member of the American Medical Association, Southern Medical Association, Academy of International Medicine, and the Mississippi State Ob-Gyn Association; died Sept. 15, 1962, aged 49.

MAGP Convenes in Jackson for 14th Session, Names Drs. Bane and Brisco to Presidential Posts

Dr. John R. Bane was inaugurated president and Dr. Lawrence H. Brisco was named president-elect of the Mississippi Academy of General Practice at the group's Sept. 26-27 meeting in Jackson.



MAGP presidents talk over the academy's 14th annual assembly held Sept. 26-27 in Jackson. From the left are Dr. Guy T. Vise, immediate past president; Dr. John R. Bane, president, and Dr. Lawrence H. Brisco, president-elect.

Other officers are Dr. Jim C. Barnett of Brookhaven, vice president; Dr. Max L. Pharr of Jackson, secretary-treasurer; Dr. John B. Howell, Jr., of Canton, delegate to the American Academy of General Practice, and Dr. W. Moncure Dabney of Crystal Springs, alternate delegate.

Newly elected directors are Dr. Willis Walker of Hattiesburg, Dr. Ben F. Banahan, Jr., of Jackson, Dr. Walter Johnston of Vicksburg, Dr. Thomas N. Braddock of West Point, and Dr. Joe Guyton of Pontotoc.

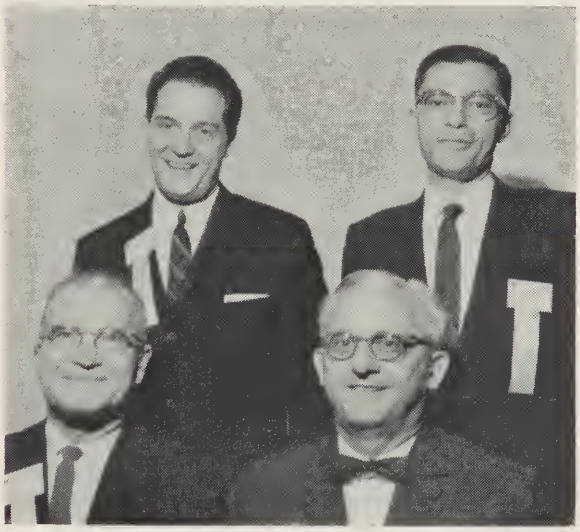
Dr. Guy T. Vise, 1962 president, opened the academy's 14th annual meeting which was held at the Heidelberg Hotel in Jackson.

Moderators for the meetings were Dr. Robert Q. Marston, dean of the University of Mississippi School of Medicine; Dr. J. Harvey Johnston, surgeon, Jackson; Dr. J. R. Snavely, professor of medicine and chairman of the department, University of Mississippi School of Medicine, and Dr. W. L. Jaquith, director, Mississippi State Hospital.

Dr. Albert E. Ritt of St. Paul, Minn., president-elect of the American Academy of General Practice, was the luncheon speaker on Sept. 27. His topic was "Is Your Business Suffering from Medical Myopia?"

During the scientific program Dr. William A. Sodeman, dean and professor of medicine, Jefferson Medical College, Philadelphia, Pa., talked on "Chest Pain—Its Interpretation" and "Digitalis Intoxication—Its Recognition and Management."

Dr. Robert D. Sloan, professor and chairman, Department of Radiology, University of Missis-



Dr. Albert E. Ritt, president-elect of the American Academy of General Practice, is shown with three of the speakers for MAGP's September meet. From left to right seated are Dr. Ritt and Dr. William A. Sodeman, and standing are Dr. George A. Constant and Dr. Alex J. Steigman. Dr. Ritt was an honored guest at the state group's meet and addressed a luncheon session.

sippi School of Medicine, discussed "Radiographic Appearance of Carcinoma of the Lung."

"Moles and Melanomas" was the topic of an address by Dr. J. Elliott Scarborough, professor of surgery, Emory University. Dr. E. Stanley Crawford, associate professor of surgery, Baylor University College of Medicine, spoke on "Surgical Treatment of Aneurysm and Occlusive Vascular Disease."



The only "double presidents" in Mississippi medicine discuss a scientific exhibit. Dr. C. P. Crenshaw, left, is incumbent MSMA president and was MAGP president in 1952 while Dr. Guy T. Vise, 1962 GP president, was MSMA head in 1958. Both physicians have served on the governing boards of both organizations.

Speakers for the second day included Dr. Alex J. Steigman, chairman of the Department of Pediatrics, University of Louisville School of Medicine, Louisville, Ky. Dr. Steigman discussed "Viral Vaccines—Today and Tomorrow" and "The Changing Spectrum of Entovirus Infections."

Dr. George A. Constant of Victoria, Texas, talked on "New Antidepressant Drugs" and "Problems of Adolescence." Dr. Thomas E. Weiss, associate professor of clinical medicine, Tulane Medical School, addressed the group on "Arthritis —Its Treatment, Prognosis, and Future."

Participation in the assembly applied toward 10 hours of continuing education for members.

Rhinologic Society Schedules L.A. Meeting

The eighth annual meeting of the American Rhinologic Society will be held Nov. 1-2 in the Statler Hilton Hotel, Los Angeles. A scientific program covering new developments in nasal surgery will be presented on the second day, it was announced by Dr. Charles J. Petrillo of New Haven, president of the society.

The meeting will be preceded by a three day course in "Expanded Surgery of the Nasal Septum" to be presented at the Loma Linda University in cooperation with the American Rhinologic Society.

Dr. Maurice H. Cottle, professor of otorhinolaryngology at the Chicago Medical School, will be the guest director of the course.

For further information, write to the American Rhinologic Society, 530 Hawthorne Place, Chicago 13, Ill.

Dr. Annis To Address SMA 56th Conference

President-elect of the American Medical Association, Dr. Edward R. Annis, Miami, will be honor guest at the 56th annual meeting of Southern Medical Association in Miami Beach, Nov. 12-15, at the Hotel Fontainebleau.

Dr. Annis will be presented by Dr. A. Clayton McCarty, Louisville, SMA president, at the annual President's Luncheon, where he will be principal speaker.

Dr. Annis, who won national fame as a speaker and debater representing the medical profession in the AMA's campaign against the King-Anderson Bill, is a Miami surgeon.

He is the first president-elect chosen for medicine's highest office in more than 40 years who had not previously served either in the House of Delegates, Board of Trustees, councils or committees of the association.

Dr. Annis became known to millions of television viewers in his debates with such public figures as Walter Reuther, president of the United Auto Workers, AFL-CIO; U. S. Senators Hubert Humphrey, Minnesota; Jacob Javits, New York; William Proxmire, Wisconsin; and Pat McNamara, Michigan. He also presented medicine's position on the King-Anderson controversy on the AMA's television program, *Your Doctor Reports.*

Dr. Annis has been active in civic as well as professional affairs in Florida throughout his career. An advocate of free enterprise and individual initiative, he has served effectively in politics at local, state, and national levels.

In 1959, Gov. Collins picked him to head the Florida Citizens Medical Committee on Health,

which brought in sweeping recommendations for better and wider services for the indigent.

He is now serving as chairman of the Committee on State Legislation of the Florida Medical Association and is on the political action committee of the Dade County Chamber of Commerce. He has also held office as director of the Family Service Bureau and of the senior citizens division of the Welfare Planning Council of Miami.

A native of Detroit, he was graduated from the University of Detroit in 1933 with a B.S. degree, and received his M.D. from Marquette University School of Medicine, Milwaukee, Wis., in 1938.

Southern Medical Association, the largest general regional medical organization in the country, annually presents a four-day scientific program covering 21 special fields of medicine and surgery, together with symposia on topics of significance of the day, and general and conjoint sessions.

Among the symposia to be presented this year is one on astromedicine, with speakers to be presented who are engaged in medical research and practice at Cape Canaveral, Patrick Air Force Base, Lovelace Foundation, U. S. Naval School of Aviation, and Homestead Air Force Base.

Subjects to be covered include bioastronautic support, occupational medicine, human stresses in space flights, drugs and aircrew personnel, and standards for astronauts.

Some 6,000 physicians and guests are expected to attend the annual meeting, said President A. Clayton McCarty.



Copyright 1962, Mississippi State Medical Association

"Did this feeling of being an insignificant pip-squeak come on suddenly, or did it develop normally with marriage and parenthood?"

Films on Estrogen Therapy Available from Ayerst

Current opinions on estrogen therapy in specific conditions are now available in the form of three new films from Ayerst Laboratories.

Titles of the productions are "Atherosclerosis and the Role of Estrogens," "Hemostasis and the Effect of Estrogens," and "The Menopause and the Role of Estrogens."

The three sound productions are the result of round table conferences directed and supervised by the Excerpta Medica Foundation. Each is a 16 mm., black and white, sound film taking 30 minutes.

Ayerst Laboratories will lend any of the films without charge to interested medical groups. Further information may be obtained from C. M. Johnson, vice president, at 685 Third Avenue, New York 17, N. Y.

Medical Leaders Urge Support for AMA-ERF

In recent letters to state physicians, both the dean of the University of Mississippi School of Medicine and the president of the Mississippi State Medical Association urged support for the 1962 AMA-Education and Research Foundation drive.

AMA-ERF, brought into being in Jan. 1962, is a consolidation of two older programs: the American Medical Education Foundation and the American Medical Research Foundation.

In addition to continuing the past AMEF program of financial assistance to medical schools, the new foundation is seeking funds to support the following projects: (1) a study of continuing medical education, (2) a research grants program for medical research workers, (3) a medical journalism fellowship program, (4) a medical scholarship and loan program.

In his letter, Dean Robert Q. Marston wrote, "Support of medical education is the business of the medical profession and it is good business. Your consideration and support of the AMA-ERF program will be reflected in improved medical education and better medical practice in Mississippi."

In a later communication, Dr. C. P. Crenshaw, MSMA president, told state physicians, "America's medical schools need financial assistance. If this need is not met through private means, then

the alternative of federal funding—and possible federal control—will be difficult to avoid."

"We owe much to our medical schools," Dr. Crenshaw continued, "and we have a proper interest in their remaining free of federal controls. There is no better way to emphasize this interest than by a contribution to AMA-ERF."

Dr. Raymond F. Grenfell of Jackson is chairman of MSMA's Committee on AMA-ERF.

Total contributions of Mississippi physicians to AMA-ERF in 1961 amounted to $5,071.99. Through donor-designated AMA-ERF gifts, the University of Mississippi received $5,067.99 in the 1961-62 school year. As its proportionate share of undesignated gifts by physicians to AMA-ERF, the University received $4,236.07, making the total amount received $9,304.06.

Contributions to AMA-ERF may be marked for a particular institution or may be undesignated. Checks should be made payable to the AMA-Education and Research Foundation and mailed to 535 North Dearborn St., Chicago 10, Ill.

Common Cancer Sites Emphasized at State Meet

Volunteers attending the Sept. 20 meeting of the Mississippi Division, American Cancer Society, heard emphasis on three common cancer sites: breast, uterus, colon and rectum.

During the morning session, workers were told the importance of early diagnosis and treatment by Dr. Albert L. Meena of Jackson who discussed "Cancer of the Breast"; Dr. Richard H. Clark, Jr., of Hattiesburg who spoke on "Cancer of the Colon and Rectum," and Dr. Claude G. Callendar of Jackson who talked on "Uterine Cancer."

Dr. Forrest G. Bratley of Jackson, president, opened the day-long meeting which was held at the King Edward Hotel in Jackson. During the afternoon session Dr. Warren N. Bell of Jackson discussed "Newer Advances in Chemotherapy."

Addressing the general assembly, Ralph Godwin, 1962 chairman of the fund-raising drive, reported that Mississippians had contributed $186,880.00 in the statewide crusade against cancer. "Although we fell short of our campaign goal for 1962, our division fund will be supplemented by a request sent to the national society for an additional $38,000," Godwin explained.

"The program which our division has planned will require this additional assistance from the national organization," he continued. Funds raised by the cancer society are allocated to the education, service, and research programs of the ACS, both at the state and national levels.



New officers of the Mississippi Division, American Cancer Society, were elected during the division's annual meeting held in Jackson. Seated, left to right, are Joseph W. Carson, Meridian, secretary, and Dr. J. Ralph Noonkester, Hattiesburg, president of William Carey College, vice-president. Standing, left to right, are Dr. Forrest G. Bratley, Jackson, retiring president; Dr. Howard A. Nelson, Greenwood, chairman of the board, and Dr. R. H. Fenstermacher, Vicksburg pathologist, president. Not pictured are Mrs. Ben C. Fitzhugh, woman's vice president and George C. Wallace, treasurer.

New officers named for the coming year were Dr. R. H. Fenstermacher of Vicksburg, president; Dr. J. Ralph Noonkester, Hattiesburg, vice president; Mrs. Ben T. Fitzhugh, Jackson, woman's vice president; Joseph W. Carson, Meridian, secretary, and George C. Wallace, Jackson, treasurer.

Dr. W. H. Parsons of Vicksburg, is the professional delegate to the national society and Mr. Carson is lay delegate.

Hattiesburg Underwriters To Receive A&RF Award

Dr. Russell L. Cecil of New York, consulting medical director to the Arthritis and Rheumatism Foundation, will be the guest speaker at a Nov. 8 dinner honoring the Hattiesburg Association of Life Underwriters.

Dr. Cecil, who was the recipient of the 1962 AMA Distinguished Service Award, will present the A&R Foundation's top award to the Hatties-

burg group for its year-long arthritis education program. The campaign included television and service club film showings, establishment of a loan closet of devices needed for arthritis victims, and the donation of a shelf of books on arthritis to the public library.

S. F. Carlisle, project chairman, will accept the award for the association. The dinner is being sponsored by the Institute of Life Insurance and the National Association of Life Underwriters.

AMA Announces Program For Winter Meeting

The 1962 clinical meeting of the American Medical Association will be held Nov. 25-28 at Los Angeles.

An attendance of 12,000, including physicians, wives, and guests, is anticipated. General arrangements are under the direction of Dr. Wilbur Bailey, past president of the Los Angeles County Medical Association and of the California Medical Society.

The four-day meeting will open at noon Sunday, Nov. 25, and will conclude at 5:30 p.m., Wednesday, Nov. 28. House of Delegates headquarters will be in the Biltmore Hotel. Scientific sessions, general registration and scientific and industrial exhibits will be in the Shrine Auditorium.

A Sunday afternoon scientific session is scheduled at 2 p.m. in lieu of the customary Thursday morning session held at past clinical meetings.



"Can you do something about feet that are two sizes too large for all my shoes?"

Serving with Dr. Bailey on the committee on arrangements are Dr. Lewis T. Bullock, and Dr. Edward H. Crane, Jr., co-chairmen of the committee on scientific program; Dr. Leonard M. Asher, chairman of the committee on television, and Dr. Allan K. Briney, Dr. Ian MacDonald, and Reuben Dalbec, secretary.

More than 100 papers will be presented on the scientific program and more than 200 industrial and scientific exhibits will be displayed at the Shrine Auditorium.

The program on viral hepatitis will present the most recent findings in studies of the only infectious disease which has shown an increase in the United States in recent years. Among those reading papers will be Dr. Joseph D. Boggs, of Northwestern University Medical School. Dr. Boggs gave a short paper in June 1961 at the AMA's annual meeting in New York City, reporting on studies that indicated an approach to developing a hepatitis vaccine.

The aerospace medicine program will feature papers by several physicians who have a leading part in the astronaut program, and also will include presentations by medical directors of an air line and an aircraft manufacturer regarding medical problems encountered in commercial aviation.

Air pollution will be studied from various aspects, with special emphasis on air pollutants that may cause physical ailments that require medical treatment.

Two units of the program will deal entirely with cancer, one on the etiology and pathogenesis of cancer and the other on new developments in chemotherapy for cancer. In addition a number of papers on other aspects of cancer will be presented on several other segments of the program.

Highlights of the program are as follows:

Sunday afternoon—Air pollution and pulmonary disease.

Monday morning—Viral hepatitis, cineradiography, general surgery, clinical nuclear medicine.

Monday afternoon—New approaches to depression and suicide, anesthesiology, thoracic surgery, disturbances of growth in children.

Tuesday morning—Etiology and pathogenesis of cancer, forensic medicine in clinical practice, urology.

Tuesday afternoon—Chemotherapy of cancer, neurosurgical program, gynecological and obstetrical program.

Wednesday morning—Medical management of cardiovascular disease, symposium on dermatologic surgery, viruses.

Wednesday afternoon—Aerospace medicine, orthopedics, ear, nose and throat.

Inform the Public, A&R Meet Told

"One of the greatest services possible to victims of arthritis is to inform the American public that there is no known cure for this disease condition,"



New officers for 1963 were named by the Mississippi Chapter, Arthritis and Rheumatism Foundation at its Sept. 20 meeting. Shown with Dr. C. P. Crenshaw, MSMA president and banquet speaker for the program, are (standing) State Rep. Odie Trenor, A&R campaign chairman; Dr. Crenshaw; Dr. J. R. Snavely, program committee chairman. Seated are Dr. Laurance J. Clark, secretary, and Dr. A. Gayden Ward, chairman of the Medical and Scientific Committee.

Dr. C. P. Crenshaw, MSMA president, told the second annual meeting of the Mississippi Chapter, Arthritis and Rheumatism Foundation.

Dr. Crenshaw gave the banquet address at the meeting held Sept. 20 in Jackson. He said that medical science is doing everything possible to discover the cause and cure for arthritis, and urged all arthritics to consult their family physicians and "stay away from quacks and self-medication."

He added that the 11 million arthritis sufferers are fair game for quacks and peddlers of worthless nostrums. "This flim-flam costs them $250 million a year," he said.

Earlier in the day conference participants heard Dr. Margaret Edwards, consultant on arthritis for the U. S. Public Health Service, Division on Chronic Disease, Washington, D. C., and Dave Silver, national science writer for the Arthritis Foundation, New York City.

Awards were presented during the banquet to Dr. A. Gayden Ward, Mrs. Elizabeth Wates, Senator Hayden Campbell, and Secretary-of-State Heber Ladner for their outstanding service to the chapter.

Dr. Ward was cited for founding the first medical and scientific committee for the chapter, and Mrs. Wates was recognized for her work in organizing the first foundation chapter in the state.

Senator Campbell's service in writing Senate Bill 1530, the state's enabling act for rehabilitating arthritic patients, was recognized. Secretary of State Heber Lader was noted for organizing the first statewide fund campaign for the foundation.

Officers named during the business meeting included:

Board of directors—Mrs. Harvey Seifert of Columbus, Hal Garbett of Columbus, Dr. William Alyea of Jackson, and Mrs. Erma Sills of Jackson, chairman.

Executive committee—Mrs. Elizabeth Wates of Jackson, chairman; Dr. Laurence J. Clark of Vicksburg, first vice chairman; Dr. Edward A. Attix, secretary; W. F. Goodman of Jackson, treasurer; Rep. Odie Trenor, state campaign chairman.

Medical and scientific committee—Dr. A. Gayden Ward of Jackson, chairman; Dr. Frederic McDuffie of Jackson, vice chairman; and Dr. Edward A. Attix of Hattiesburg, secretary.

Dr. Hardy Addresses Philadelphia County Society

Dr. James D. Hardy, professor and chairman of the Department of Surgery, University of Mississippi School of Medicine, delivered the 34th Annual Da Costa Oration before the Philadelphia County Medical Society on Oct. 10. The meeting was held at the society's headquarters in Philadelphia, Pa.

Dr. Hardy spoke on "Problems Associated with Gastric Surgery."

A 1942 graduate of the University of Pennsylvania School of Medicine, Dr. Hardy served his internship and residencies in medicine, surgery and thoracic surgery at the university. He also served as instructor in surgery. In 1951 he received a master of medical science degree in physiological chemistry from the Graduate School of Medicine.

Dr. Hardy is immediate past president of the Society of University Surgeons, a member of the

Surgery Study Section, National Institutes of Health, and the author of eight books, 178 publications, and 18 scientific films.

The Da Costa award originated with the establishment of the Da Costa Foundation in 1930 in honor of Dr. John Chalmers Da Costa, Samuel D. Gross Professor of Surgery at the Jefferson Medical College for more than 40 years. Dr. Da Costa, a native of Philadelphia, who was a life member of the society when he died in 1933, delivered the first oration in 1931.

Dr. Hardy's lecture was preceded by a subscription dinner, at which he was guest of honor.

State Nursing Reappraisal Available From MNA

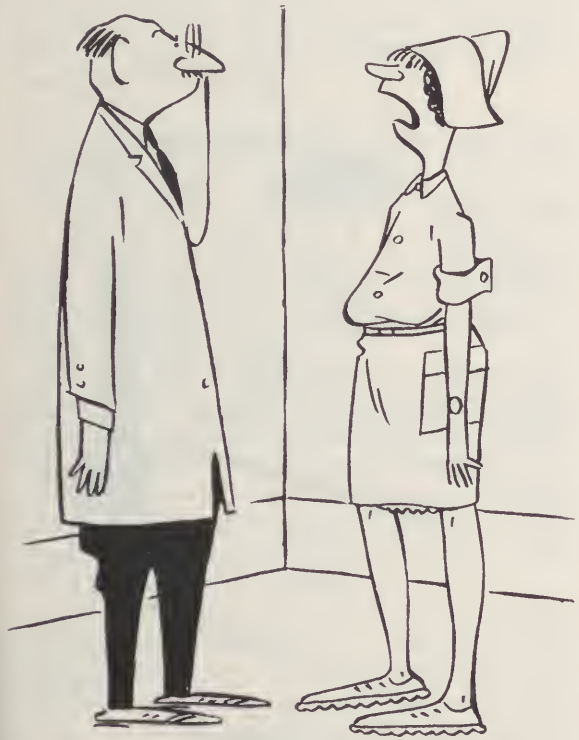
Reappraisal of Mississippi Nursing Needs and Resources, a report of a committee for the Coordinating Council of the Mississippi Nurses Association and the Mississippi League for Nursing, is now available from MNA.

Copies may be secured for $3.50 from the association at 703 North Street, Jackson, Miss.

The report includes a historic development of the strengthening of nursing in Mississippi during the period 1948 to 1960, the role of effective legislation, and the content of a workshop conducted with the assistance of the Division of Resources, United States Public Health Service, to determine present day needs and problems.

Two MSMA representatives: Dr. J. A. K. Birchett of Vicksburg and Dr. Howard A. Nelson of Greenwood, served on the Advisory Committee for the Reappraisal. Dr. David Wilson represented the Mississippi Hospital Association.

Coauthors of the 118-page report are Christine L. Oglevee, dean, School of Nursing, University of Mississippi, chairman for reappraisal; Anna Phair Musgrave, director, Hattiesburg's Methodist Hospital School of Nursing, study director and secretary of reappraisal; Annie Margaret Tucker, nursing education consultant, Board of Trustees, Institutions of Higher Learning, assistant study director.



Copyright 1962, Mississippi State Medical Association

BOSERMAN

"Yes, I tested the urine. That's what it was, all right."

Central Society To Hear Talk on Gout

Dr. Alexander B. Gutman of New York City will speak to the Central Medical Society Tuesday, Nov. 6, on "Uric Acid Metabolism and Gout."

Dr. Gutman is professor of medicine, Columbia College of Physicians and Surgeons, and chief of the medical service, Mount Sinai Hospital, New York.

An outstanding authority on gout, Dr. Gutman will be visiting Jackson as a guest of the Mississippi Chapter, Arthritis and Rheumatism Foundation.

Four Essayists To Address Seminar on Cancer

Four scientific essayists have been scheduled for the Nov. 8 Professional Seminar to be sponsored by the Mississippi Division, American Cancer Society.

The meeting will begin at 1:30 p.m. in the Vogue Room of the Broadwater Beach Hotel in Biloxi and will adjourn at 5:00 p.m. Dr. Willard H. Parsons of Vicksburg is chairman of the society's Professional Education Committee which planned the seminar.

Speakers and topics for the session are Dr. William W. Ogden, Louisiana State University School of Medicine, New Orleans, La., who will discuss "Carcinoma of the Thyroid"; Dr. Murray M. Copeland, Anderson Hospital, Houston, Texas, who will talk on "What Is New in Cancer"; Dr. War-

ren N. Bell, University of Mississippi School of Medicine, who will speak on "Chemotherapy in the Management of Cancer," and Dr. Howard Mahorner, Mahorner Clinic, New Orleans, who will consider "Malignancies of the Large Bowel."

Final feature of the program will be a panel discussion on "The Role of the Viruses in the Cancer Problem." Moderator will be Dr. Parsons and panelists will be Drs. Ogden, Copeland, Bell, and Mahorner.

Dr. Forrest G. Bratley, immediate past president of the Mississippi Division, will give the introductory remarks, and Miss Lucille Russ, executive director, will discuss "The American Cancer Society."

Reimbursement Commission Establishes Policy

In its 1962 Regular Session, the Mississippi Legislature passed an act to provide for the assessment and collection of support and maintenance costs for patients in certain state institutions.

The institutions affected by Senate Bill 1565 are: Mississippi State Hospital, Whitfield; East Mississippi State Hospital, Meridian; Ellisville State School, Ellisville; South Mississippi Charity Hospital, Laurel; Matty Hersee Hospital, Meridian; Natchez Charity Hospital, Natchez; Kuhn Memorial State Hospital, Vicksburg; Mississippi Hospital-School for Cerebral Palsy, Jackson; and University Hospital, Jackson.

In implementing Senate Bill 1565, the Mississippi Hospital Reimbursement Commission, which was created by the act, voted to: (1) set up a minimum staff at the state level whose main function will be that of implementing and supplementing the methods of collections made at the institutional level, (2) set maximum fees at institutions as provided by the Reimbursement Act and collect on a system of equity, using moral responsibility and willingness to pay at the time of admission rather than emphasizing legal responsibility, (3) gradually develop a realistic criteria for Mississippi based upon a study of special factors plus the experience gained through operation.

These recommendations were based upon several existing conditions. Each hospital or institution covered by the Reimbursement Act has a system of collections and has persons employed for this purpose. In addition, the attorney general has ruled that the only legal claim for reimbursement for hospital or institutional care which can be made in Mississippi is against the patient or his estate, against the husband or wife for the care of spouse, or against a parent for the care of a child under 21 years of age.

Criteria for determining the ability to pay developed for southern states begins with a cost of living index of $450 for a family of four, or $255 for one person. Both of these figures are well above the average per capita income in Mississippi. A large percentage of the patients affected by the Reimbursement Act are from lower income groups and to apply any general criteria now in existence would result in a loss rather than an increase of present revenue.

The Reimbursement Commission recommended an annual budget for the first year of not over $15,000 to be prorated to the nine institutions in proportion to their appropriation as provided by Senate Bill 1565. Charges for the institutions are:

Mississippi Hospital-School for Cerebral Palsy —$225 per month maximum



Copyright 1962, Mississippi State Medical Association

"I just want somebody of authority to tell me that it's silly to worry so much about 'fallout.'"

Mississippi State Hospital—Whitfield—$75 per month maximum

East Mississippi State Hospital—Meridian—$70 per month maximum

Ellisville State School—Ellisville—$54 per month maximum

University Hospital—Jackson—$32.50 per day maximum, $50 for OB cases (special services covered by insurance to be added)

Eleemosynary Institutions (4) $10 per day maximum—$25 for OB cases (special services covered by insurance to be added)

The commission pointed out that a general policy of furnishing local admitting officers practical criteria for determining the ability to pay with emphasis upon the necessity for a consummation of the agreement at the time of admission or dismissal of the patient will result in maximum reimbursement collections with a minimum use of legal procedures.

Members of the commission are Seth Hudspeth, executive secretary, Board of Trustees, Mental Institutions; James C. Stubbs, executive secretary, Board of Trustees, Eleemosynary Institutions; Dr. A. L. Gray, state health officer; Dr. David B. Wilson, director, University of Mississippi Medical Center; Thomas B. Dungan, director, Mississippi Hospital-School for Cerebral Palsy; Miss Helen Rees, director of public assistance, Mississippi State Welfare Department.

TB Association To Launch Respiratory Disease Campaign

The National Tuberculosis Association and its affiliated associations will conduct a nationwide educational campaign on respiratory diseases from May through June 1963.

This will be the first full scale educational RD campaign for the associations, which have been gradually expanding their activities into the broad field of respiratory diseases for a number of years.

According to Dr. James E. Perkins, managing director of NTA, the project is being planned because of the increasing threat to health represented by respiratory diseases.

Prior to the beginning of the 1963 RD campaign in each community, Dr. Perkins said, the local association will seek the cooperation of the local medical society. The objective of the program is to get the public to recognize the two potentially serious symptoms of coughing and shortness of breath and to seek medical advice.

"Respiratory diseases, both acute and chronic, are a leading cause of disability and death in the United States today," said Dr. Perkins. "The symptoms of acute respiratory distress are easily recognized and lead the patient to seek alleviation. Not so those of chronic disease, which may go unnoticed as warning signals or may be dismissed as of no consequence."

Statistics from the National Health Survey show that diseases affecting or transmitted through the respiratory system are responsible for one out of every ten deaths and that deaths from emphysema alone more than doubled between 1954 and 1959.

Diabetes Drive Set For Nov. 11-17

The 1962 Diabetes Detection Drive will be held Nov. 11-17, according to Dr. Joseph H. Crampton, chairman of the American Diabetes Association's Committee on Public Education and Detection.

New figures just released by the ADA's Committee on Statistics indicates that there are approximately 3,000,000 diabetics in the country of whom about 1,400,000 are unaware that they have the condition.

Dr. Crampton asked that Mississippi physicians give active leadership to the 1962 Drive stating that "this help is essential if we are to cope with this ever more serious national medical problem."

Contributions Asked for AMA-ERF Loan Program

As of latest reports, the AMA-Education and Research Foundation expected to commit the entire guarantee fund for its bank loan program by the end of October.

Begun in February 1962 the program guarantees bank loans made to medical students, interns, and residents. In effect, AMA becomes a cosigner of long-term notes with the notes to be paid off after education is completed and the physician has begun practice.

In the first six months of the program, 3,318 young men and women borrowed more than $6,000,000. During that same period, thousands of physicians and others invested almost $700,000 in the loan guarantee fund. For every $12,500,000 in loans made by the bank, AMA must have $1,000,000 in the guarantee fund.

Loans were made in 49 states, to students in 81 medical schools, and to interns and residents in 320 different hospitals. About two-thirds of the

money went to students, and the other third to interns and residents. The weekly average of loans approved has been $277,500.

According to AMA-ERF officials, the program will become self-sustaining in a few years. When those now borrowing money have completed their training, loan repayments will balance new borrowing and medical students in the future will have a stable and continuing source of financial assistance.

However, at the present more money is needed for investment in the guarantee fund. New loan requests are being received at the rate of 150 per week.

Contributions to AMA-ERF are tax deductible. Checks should be made payable to the Education and Research Foundation of AMA and mailed to 535 North Dearborn St., Chicago 10, Ill.

State Meet Set By Chest Physicians

The Mississippi Chapter, American College of Chest Physicians, has scheduled a dinner meeting for Nov. 19, according to Dr. Guy D. Campbell of Jackson, president. The meeting will be held at the Mississippi State Sanatorium.

Dr. Campbell said members should contact Dr. Clyde A. Watkins, Sanatorium, for reservations for themselves and guests. The dinner is set for 6:00 p.m., he said.

Speakers will be Dr. Sam Robinson of Laurel who will talk on "Surgical Therapy in Patients with Diabetes and Pulmonary Tuberculosis" and Dr. Myra Tyler of Jackson who will discuss " 'Terminal' Pulmonary Failure: Potentially Reversible."

Dr. Watts Webb of Jackson is vice president of the group and Dr. Jesse Wofford of Jackson is secretary-treasurer.

State Surgeons Announce Speakers for Nov. 16 Meet

Five scientific speakers are slated to appear before the Nov. 16 meeting of the Mississippi Chapter, American College of Surgeons.

According to Dr. Jack V. King of Jackson, president, out-of-state essayists will be Dr. Robert Rowe, clinical professor of surgery and head of the Division of Proctology, Division of Surgery, University of Texas Southwestern Medical School, who will talk on "Current Management of Carcinoma of the Low Sigmoid and Rectum" and Dr. Ben Eiseman, professor and chairman, Department of Surgery, University of Kentucky Medical Center.

State speakers will include Dr. C. G. Sutherland of Jackson who will discuss "Carcinoma of the Cervix—Treatment and Complications," Dr. George Martin of Vicksburg who will talk on "The Treatment of Duodenal Ulcer by Vagotomy, Antrectomy, and Billroth I Anastomosis," and Dr. Richard F. Filey of Meridian who will talk on "Arterial Surgery in the Small Hospital."

An afternoon panel on "How I Do It" will be moderated by Dr. Curtis P. Artz, associate professor of surgery, University of Mississippi School of Medicine. Panelists will be Dr. Rowe, Dr. Eiseman, and Dr. James D. Hardy, professor and chairman, Department of Surgery, University of Mississippi School of Medicine.

Banquet speaker will be Dr. James Royals of Jackson who will talk on "Cruising the Islands by Private Plane."

Delta Society Names Dr. Mounger President

Dr. S. G. Mounger was re-elected president at the 78th semi-annual meeting of the Delta Medical Society held Oct. 10 in Rosedale. Dr. Mounger was serving out an unexpired term.

Other officers are Dr. T. M. Riddell of Shaw, president-elect, and Dr. Howard A. Nelson of Greenwood, secretary-treasurer.

Guest essayist for the program was Dr. J. R. Snavely, chairman of the Department of Medicine, University of Mississippi School of Medicine. Dr. Snavely spoke on "A Practical Classification of the Cirrhoses, with Emphasis on Treatment."

Other speakers and their topics included Dr. Eugene E. Tibbs of Cleveland, "Upper Gastrointestinal Bleeding"; Dr. John S. Barr of Belzoni, "Primary Carcinoma of the Gallbladder"; Dr. E. M. Meek of Greenwood, "Carcinoma of the Penis—With Case Reports"; Dr. T. Y. Williford, Jr., of Greenville, "The Use and Misuse of Procedures and Drugs in Pediatrics."

Dr. W. Byron Inmon, associate professor, Department of Obstetrics and Gynecology, University of Mississippi School of Medicine, addressed the group on "Urinary Incontinence in the Female."

Discussers were Drs. Phil O. Nelson of Cleveland, Thomas G. Barnes of Greenville, Clyde Smith of Greenwood, and E. G. Tutor, Jr., of Greenville.

LOMOTIL®

(brand of diphenoxylate hydrochloride with atropine sulfate)



ANTIDIARRHEAL TABLETS and LIQUID

lowers motility / relieves cramping / controls diarrhea

Roentgenographic studies by Demeulenaere[1] established that a single dose of 10 mg. of Lomotil slowed gastrointestinal transit within two hours and that it maintained its decelerating activity for more than six hours.

In diarrhea this lowered propulsion permits a physiologic absorption of excess fluid, lessens frequency and fluidity of stools and gives safe, selective, symptomatic control of most diarrheas. Concurrently, it conserves electrolytes and controls cramping.

Investigators have found the antidiarrhéal action of Lomotil not only "excellent"[2] but "efficacious[3] where other drugs have failed. . . ."

DOSAGE: For *adults* the recommended initial dosage is two tablets (2.5 mg. each) three or four times daily, reduced to meet the requirements of each patient as soon as the diarrhea is under control. Maintenance dosage may be as low as two tablets daily. For *children* daily dosages, in divided doses, range from 3 mg. (½ teaspoonful three times daily) for infants 3 to 6 months to 10 mg. (1 teaspoonful five times daily) for children 8 to 12 years. Lomotil is supplied as unscored, uncoated white tablets of 2.5 mg. and as liquid containing 2.5 mg. in each 5 cc. A subtherapeutic amount of atropine sulfate (0.025 mg.) is added to each tablet and each 5 cc. of the liquid to discourage deliberate overdosage. The recommended dosage schedules should not be exceeded.

NOTE: Lomotil is an exempt narcotic preparation.

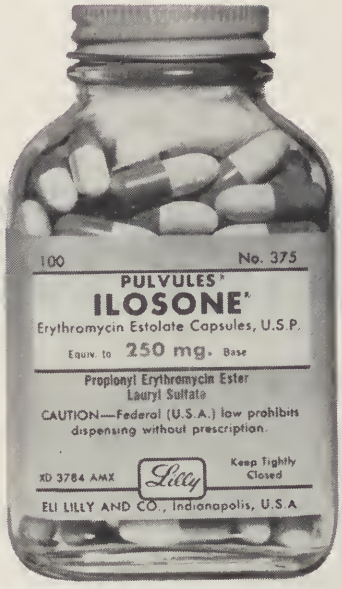
Descriptive literature and directions for use detailed in Physicians' Product Brochure No. 81 available from G. D. Searle & Co., P. O. Box 5110, Chicago 80, Illinois.

1. Demeulenaere, L.: Actian du R 1132 sur le transit gastraintestinal, Acta Gastroent. Belg. 21:674-680 (Sept.-Oct.) 1958.
2. Kasich, A. M.: Treatment of Diarrhea in Irritable Colon, Including Preliminary Observations with a New Antidiarrheal Agent, Diphenaxylate Hydrochloride (Lomotil), Amer. J. Gastroent. 35:46-49 (Jan.) 1961.
3. Weingarten, B.: Weiss, J., and Siman, M.: A Clinical Evaluation of a New Antidiarrheal Agent, Amer. J. Gastroent. 35:628-633 (June) 1961.

G. D. SEARLE & CO.

Research in the Service of Medicine





sign of infection?

symbol of therapy!

Ilosone® is better absorbed—It provides high, long-lasting levels of antibacterial activity—two to four times those of other erythromycin preparations—even on a full stomach. **Ilosone is bactericidal**—It provides bactericidal action against streptococci, pneumococci, and some strains of staphylococci. **Ilosone activity is concentrated**—It exerts its greatest activity against the gram-positive organisms—the offending pathogens in most common bacterial infections of the respiratory tract and soft tissues.

The usual dosage for infants and for children under twenty-five pounds is 5 mg. per pound every six hours; for children twenty-five to fifty pounds, 125 mg. every six hours. For adults and for children over fifty pounds, the usual dosage is 250 mg. every six hours. In more severe or deep-seated infections, these dosages may be doubled. Ilosone is available in three convenient forms: Pulvules®—125 and 250 mg.*; Oral Suspension—125 mg.* per 5-cc. teaspoonful; and Drops—5 mg.* per drop, with dropper calibrated at 25 and 50 mg.

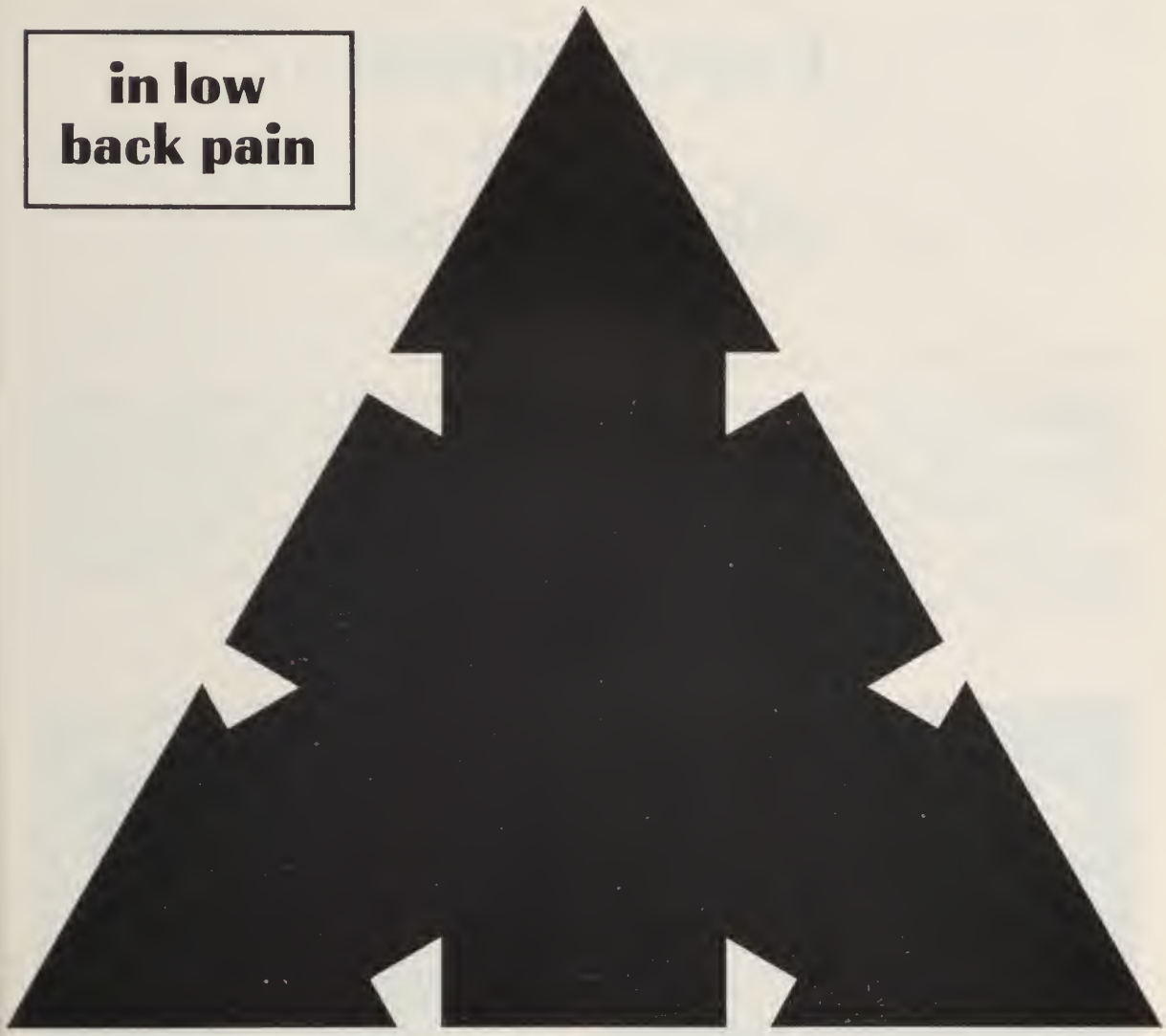
Lilly

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature.
Eli Lilly and Company, Indianapolis 6, Indiana. Ilosone® (erythromycin estolate, Lilly) *Base equivalent

232589

Ilosone works to speed recovery

in low back pain



Trancogesic helps the whole patient by breaking the triad of pain

The action of Trancogesic is direct and as simple as 1, 2, 3. Its tranquilaxant component—chlormezanone—1. reduces emotional reaction to pain...2. decreases skeletal muscle spasm...and 3. its aspirin component dims the patient's perception of pain. Thus, Trancogesic treats the *whole* pain complex, helps the *whole* patient—*with unsurpassed safety.*

Each tablet of TRANCOGESIC contains 100 mg. of chlormezanone and 300 mg. (5 grains) of aspirin. The usual adult dosage is 2 tablets of Trancogesic three or four times daily; the dosage suggested for children from 5 to 12 years is 1 tablet three or four times daily. Before prescribing, consult Winthrop's literature for additional information about dosage, possible side effects, and contraindications. WINTHROP LABORATORIES, NEW YORK 18, N. Y.

TRANCOGESIC*

Brand of chlormezanone + aspirin

*TRADEMARK

Winthrop

1730M

Logical support for the atherosclerosis diet

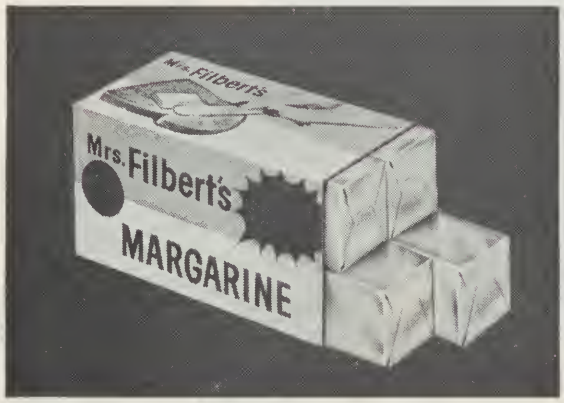
A recent report* in the *JAMA* on atherosclerosis states, "...it appears logical to attempt to reduce high concentrations of cholesterol and other serum lipids as an experimental therapeutic procedure."

Since this report recognizes table spreads as an important source of dietary fat, it is in your professional interest to know about the fatty acid composition of the margarines from Mrs. Filbert's.

Each of Mrs. Filbert's Margarines is over 80% unsaturated and offers unique properties useful in the control of serum lipids by dietary means.

Moreover, when you recommend any one of Mrs. Filbert's Margarines, your patient is assured of unmatched taste and flavor satisfaction—an important consideration in promoting adherence to any therapeutic regimen.

*AMA Council on Foods and Nutrition: The Regulation of Dietary Fat, *JAMA* 181: 411-423 (August 4, 1962).



Mrs. Filbert's Margarine is a popular, conventional-type margarine with no premium price. It is made from the finest domestic vegetable oils, which are partially hydrogenated for texture, but remain over 80% unsaturated. It has a ratio of polyunsaturates to saturates in excess of 1 to 1. Of the total fatty-acid content, 7% is cis-cis linoleic acid.



Mrs. Filbert's Whipped Margarine contains the same number of calories per pound as ordinary margarine, but contains 30% *fewer calories per pat* because it is whipped. When spread normally, it provides satisfaction with a reduction in fat calories. And its ratio of polyunsaturates to saturates exceeds 1 to 1. Of the total fatty-acid content, 7% is cis-cis linoleic acid.

If you would like information about Mrs. Filbert's family of margarines—including detailed listings of their component characteristics—please write to us.

J. H. FILBERT, Inc.

BALTIMORE 29, MARYLAND

Orthopedics To Be Subject of Georgia Course

Diagnosis and conservative treatment of orthopedic disease and injury, primarily in the ambulatory patient, will be the emphasis of the postgraduate course, Orthopedics in General Practice, to be held at the Medical College of Georgia, Dec. 4, 5, 6, 1962.

Short histories and clinical findings followed by discussion will be the structure of the program. The indications for surgery will be stated and problems in both child and adult will be considered. One session will be devoted to impressions and recommendations regarding cases and x-rays submitted by participants of the course.

Dr. F. James Funk, Jr., associate in surgery (orthopedic), Emory University School of Medicine, Atlanta, Ga., and Dr. C. Roger Sullivan, Mayo Clinic and Mayo Foundation, Rochester, Minn., will be the featured faculty. Coordinators for the course are Dr. Floyd E. Bliven, Jr., professor of surgery and chief of orthopedics, Medical College of Georgia, and Dr. James W. Harkess, associate professor of surgery (orthopedic), Medical College of Georgia. Faculty members of the Medical College of Georgia will participate.

Each course is acceptable for 18 hours credit by the American Academy of General Practice. Registration is limited to a small group for close faculty-participant communication. Registration fee is $50. Application can be made by contacting Dr. Claude-Starr Wright, Director, Department of Continuing Education, Medical College of Georgia, Augusta, Georgia.

Film on Rheumatoid Arthritis Now Available

A color film with sound entitled "Rheumatoid Arthritis" is now available for showing by professional and medical groups.

Produced by the Arthritis and Rheumatism Foundation, the film is 16 mm. and is 30 minutes in length. It may be obtained from Dr. A. B. Cobb, State Board of Health, Jackson.

The film covers modern treatment of rheumatoid arthritis and is not designed for lay audiences.



ST. PAUL MULTICOVER PLAN

SINGLE PACKAGE OFFERS THE PROFESSIONAL MAN THE MOST COMPLETE, MOST CONVENIENT COVERAGES EVER!

Choose from over 40 kinds of protection, pack those you need into a single St. Paul Multicover Plan. Deal with just one agent . . . pay just one premium. It's simple and safer, too.

Avoids overlapping coverages or loopholes between individual policies. Write for explanatory booklet.

THE ST. PAUL
INSURANCE COMPANIES



Serving you around the world... around the clock

St. Paul Fire & Marine Insurance Company
St. Paul Mercury Insurance Company
Western Life Insurance Company

Endorsed for Professional Liability by Mississippi State Medical Association

MISSISSIPPI OFFICE
P.O. Box 1412
1129 Deposit Guaranty Bank Bldg.
Jackson 5, Mississippi
FLeetwood 3-4961

HOME OFFICE
385 Washington Street
St. Paul 2, Minnesota

If you've been thinking of adding your own x-ray service...



get the

PRACTICAL PLAN

from your G-E man...

He gives you more than a "makeshift" layout!

Your G-E x-ray representative works with all kinds of installations. He can judge the type of equipment best suited to the demands of your practice and can help you plan its most efficient arrangement. His detailed layout will take full advantage of dozens of time-and-money-saving details — including suggestions on electric power and wiring requirements, x-ray protective needs, darkroom plumbing and accessories, plus many other recommendations to insure a completely efficient installation.

Your G-E man has earned a reputation among x-ray users as "*the* man who knows x-ray." What's more, he's backed by a full-time staff of specialists in the layout and design of x-ray installations. With this kind of help you can efficiently add x-ray to your practice. An obligation-free survey to start your practical plan can be had by phoning your G-E man at any office shown below.

MAXISERVICE® X-ray Rental opens the way to new x-ray equipment *without capital investment*. We will gladly show you how it provides equipment of your choice on a "pay-as-you-go" basis, for a modest monthly fee.

Progress Is Our Most Important Product

GENERAL ELECTRIC

DIRECT FACTORY BRANCHES
MEMPHIS
778 Madison Ave. • JAckson 5-0526
NEW ORLEANS
7715 Edinburgh St. • HUnter 8-7742

RESIDENT REPRESENTATIVES
BATON ROUGE
C. A. EBERSBAKER
2451 Honeysuckle Ave. • DIckens 2-2308
JACKSON
G. L. LAUDERDALE
Box 4344 Fondren Station • FLeetwood 3-5937

Control Constipation Without Interference

PRULET®



A MILD REFLEX ACTING LAXATIVE...

does not interfere with other conditions under treatment.

The active ingredient of Prulet,® Bis(p-acetoxyphenyl) -oxindole, is analogous to a substance found in prunes. Completely recoverable from the feces, it has no deleterious effect on the vital organs. It is completely free from side effects, such as coloring of the urine, hyperemia and flatulence. During lactation no portion of the active ingredient of Prulet® appears in the milk and it has no effect on the nursing infant.

PRULET®...

provides therapeutic effectiveness with milligram dosage.

EASY TO TAKE: Prulet® tablets are small, odorless, and tasteless.

SUPPLIED: Bottles of 60.

EACH TABLET CONTAINS:
Bis (p-acetoxyphenyl)-oxindole . . . 5 mg

DOSAGE: One or two tablets before retiring until regularity is achieved or as directed by a physician.

PRECAUTIONS: Presence of nausea, vomiting, abdominal pains, or other symptoms of appendicitis.

COMPLETE LITERATURE AND SAMPLES UPON REQUEST

Mission Pharmacal Co.
SAN ANTONIO 6, TEXAS

PR-61



Think Clean!

Detergent, mucolytic, antibacterial, penetrating... qualities that establish Trichotine as a leading vaginal cleanser—both as a therapeutic measure unto itself, and as a cleansing adjunct to therapy.[1-3] A detergent, Trichotine penetrates the rugal folds, removes mucus debris, vaginal discharge, and cervical plugs.[1-4] Surface tension is 33 dynes/cm. (vinegar is 72 dynes/cm.). Trichotine relieves itching and burning—is virtually non-irritating—leaves your patient feeling clean and refreshed. It establishes and maintains a normal, healthy vaginal mucosa in routine vaginal cleansing, as well as in therapy. Whenever you think of a vaginal irrigant, think of the detergent cleansing action of Trichotine.

detergent action
for vaginal irrigation Trichotine®
POWDER

ACTIVE INGREDIENTS: Sodium lauryl sulfate, sodium perborate, sodium borate, thymol, eucalyptol, menthol, methyl salicylate. AVAILABLE: In jars of 5, 12 and 20 oz. powder. REFERENCES: 1. Stepto, R. C., and Guinant, D.: J. Nat. M.A. 53:234, 1961. 2. Karnaky, K. J.: Medical Record and Annals 46:296, 1952. 3. Folsome, C. E.: Personal Communication. 4. MacDonald, E. M., and Tatum, A. L.: J. Immunology 59:301, 1948.

THE FESLER COMPANY, INC., KENILWORTH, NEW JERSEY

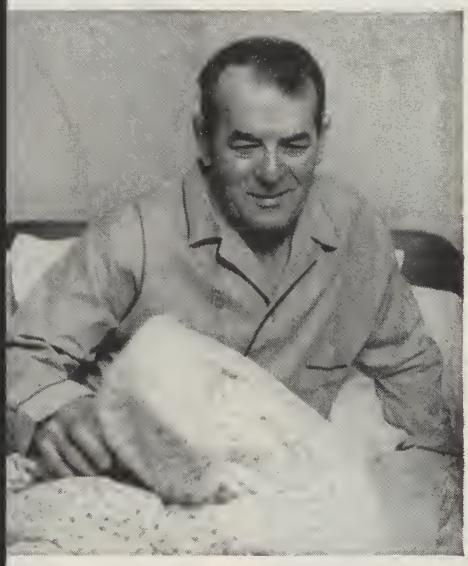


Thanks to 135 tiny "doses" throughout the ight

*Trademark, Reg. U.S. Pat.Off. Copyright 1962, The Upjohn Company



right, the arthritic wakes up comfortable



Morning stiffness may be reduced or even eliminated as a result of therapy with the only steroid in long-acting form. And the slow, steady release of steroid makes it possible in some cases to reduce the frequency of administration and/or the total daily steroid dosage.

Medrol* Medules*

Each hard-filled capsule contains Medrol (methylprednisolone) 4 mg. Also available in 2 mg. soft elastic capsules.

Supplied in bottles of 30 and 100.

Upjohn

The Upjohn Company, Kalamazoo, Michigan

Reminder advertisement.
Please see package insert for detailed product information.

SPECIAL COUGH FORMULA *for Children*

Pediacof®

SOOTHING DECONGESTANT AND EXPECTORANT

Each teaspoon (5 ml.) contains:

Codeine phosphate	5.0 mg.
Neo-Synephrine® hydrochloride (brand of phenylephrine hydrochloride)	2.5 mg.
Chlorpheniramine maleate	0.75 mg.
Potassium iodide	75.0 mg.



Bright red, pleasant tasting, raspberry flavored syrup

Dosage:

Children from 6 months to 1 year, 1/4 teaspoon; 1 to 3 years, 1/2 to 1 teaspoon; 3 to 6 years, 1 to 2 teaspoons; 6 to 12 years, 2 teaspoons. Every four to six hours as needed.

How Supplied:
Bottles of 16 fl. oz.

Available on prescription only.

Exempt Narcotic

Winthrop LABORATORIES
New York 18, N Y

BONADOXIN®
for nausea and vomiting

Confirmed in over 7 years of clinical success:
Bonadoxin stops morning sickness in 9 out of 10 patients[1]

Highly effective in other emetic conditions: postoperatively, following irradiation procedures, infant colic.

BONADOXIN®
Tablets · Drops · Intramuscular

time-tested for efficacy and safety

1. Groskloss, H.H., Clancy, C.L., Healey, E.F., McCann, W.J., Maloney, F.D., Loritz, A.F.: Clinical Medicine (Sept.) 1955.
Study involving 287 patients. 261 patients experienced excellent to good results with Bonadoxin for relief of nausea and vomiting of pregnancy. No side effects reported.[1]

2. Albertson, H.A., Trout, Jr., H.H., Daily, F.W.: The American Journal of Surgery (Sept.) 1956.
"As a result of this study, it is our belief that the routine prophylactic use of the combination of meclizine hydrochloride and pyridoxine is a safe and effective method for lessening the incidence of postoperative nausea and vomiting. We are employing this preparation as a routine pre-operative medication."[2]

3. Goldsmith, J.W.: Minn. Med. (Feb.) 1957.
Study involving 620 patients, 537 patients experienced moderate to complete improvement of nausea and vomiting of pregnancy with Bonadoxin. Toxicity and intolerance to the medication in the dosage employed in these studies was zero.[3]

4. Codling, J.W.; Lowden, R.J.: Northwest Med. (March) 1958.
Study involving 76 pregnant patients with nausea and vomiting. The results indicated an overall response in 70 of 76 patients treated. No side reactions were observed in this clinical study.[4]

5. Bentley, M.D.: Journal of the Mich. State Med. Soc. (Sept.) 1959.
[Bonadoxin] "was found clinically effective in the prevention of pre-operative and post-operative nausea and emesis in 157 patients who underwent ocular surgery, while control drugs alone could not completely eliminate the symptoms. Bonadoxin did not cause side reactions in the preoperative or postoperative phase of this study."[5]

6. Bethea, R.C.: International Record of Med. (May) 1960.
"Our investigation of this drug indicates that in 88 per cent of the cases satisfactory relief of the distressing symptoms of early pregnancy was obtained without undesirable side effects, including sedation."[6]

7. Sklaroff, D.M.; Karayannis, N.: Current Therapeutic Research (June) 1962.
"Based on these results, indicating 92 per cent effectiveness, meclizine-pyridoxine (Bonadoxin®) may be considered a valuable compound in the control of post-irradiation nausea and vomiting. The preparation proved to be safe and fast-acting in bringing therapeutic relief to carcinoma patients with radiation sickness."[7]



Rx ROERIG
New York 17, N.Y.
Div., Chas. Pfizer & Co., Inc.
Science for the World's Well-Being®

Trocinate®

Brand of Thiphenamil HCl.

FOR DIVERTICULITIS, MUCUS COLITIS, IRRITATIVE DIARRHEA, IRRITATIVE URETERITIS, BLADDER SPASM

*T*rocinate is a musculotropic antispasmodic with no appreciable anticholinergic action. It relieves spasms of the lower bowel and genito-urinary tract by direct action on the contractile mechanism of smooth muscles. The absence of any appreciable action on the autonomic nervous system eliminates the usual side-effects. It may be safely used in glaucoma. Each tablet contains 100 mgs. Trocinate HCl.

USUAL DOSAGE: 2 tablets, 4 times a day. Maintenance dosage is frequently lower.

Dispensed in bottles of 40 and 250 tablets.

WM. P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA

Manufacturers of ethical pharmaceuticals since 1856



Welcome to another year of Lederle Symposia

Recognizing that the exchange of ideas is fundamental to medical progress, Lederle continues its Symposium program with the 11th year of scheduled meetings. Through these Symposia, sponsored by medical organizations with our cooperation, over 55,000 physicians have had the opportunity to hear and question authorities on important advances in clinical medicine and surgery. You have a standing invitation to attend any of these Symposia with your wife for whom a special program is planned.

SANTA BARBARA, CALIFORNIA
Saturday, November 3, 1962
Santa Barbara Biltmore Hotel

INDIANAPOLIS, INDIANA
Wednesday, November 7, 1962
The Marott Hotel

ANAHEIM, CALIFORNIA
Sunday, November 11, 1962
The Disneyland Hotel

KNOXVILLE, TENNESSEE
Thursday, November 15, 1962
Hotel Andrew Johnson

PHOENIX, ARIZONA
November 18, 1962
Westward Ho Hotel

NEW CITY, NEW YORK
Wednesday, November 28, 1962
Dellwood Country Club

LOS ANGELES, CALIFORNIA
November 29, 1962
Ambassador Hotel

GRAND RAPIDS, MICHIGAN
Saturday, December 1, 1962
Pantlind Hotel

NORFOLK, VIRGINIA
December 6, 1962
Golden Triangle Motor Hotel

DENVER, COLORADO
Sunday, January 13, 1963
The Cosmopolitan Hotel

FORT SMITH, ARKANSAS
Tuesday, January 15, 1963
The Holiday Inn

PORTLAND, OREGON
Thursday, January 31, 1963
The Sheraton-Portland Hotel

ANCHORAGE, ALASKA
Saturday, February 23, 1963
The Anchorage Westward Hotel

DETROIT, MICHIGAN
Wednesday, February 27, 1963
The Sheraton-Cadillac Hotel

WILMINGTON, DELAWARE
Saturday, March 9, 1963
Delaware Academy of Medicine

HUNTSVILLE, ALABAMA
Thursday, March 14, 1963
The Russel Erskine Hotel

FARGO, NORTH DAKOTA
Saturday, March 16, 1963
The Frederick Martin Hotel
(Moorhead, Minn.)

BELLINGHAM, WASHINGTON
Saturday, March 23, 1963
The Hotel Leopold

Lederle LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

Stelazine® will stop anxiety—but not your patient!
brand of trifluoperazine

To be truly useful in your office patients, an ataractic agent must not only relieve anxiety; it must also leave these patients sufficiently alert to engage in their normal activities.

'Stelazine' is such an agent. Its ability to relieve anxiety without producing appreciable sedation has been established in thousands of patients and documented by many published reports. Typical is the finding of Kolodny,[1] who concluded that the primary advantage of 'Stelazine' over many other tranquilizers seems to be "its ability to relieve symptoms of anxiety without undue interference with alertness."

When you wish to relieve anxiety, yet encourage the patient to engage in his normal activities, consider 'Stelazine'.

1. Kolodny, A.L.: Dis. Nerv. System *22*:151 (Mar.) 1961.

For prescribing information, please see *PDR* or available literature.

Smith Kline & French Laboratories, Philadelphia
leaders in psychopharmaceutical research

SK&F





who coughed?

HYCOMINE® SYRUP for COUGHS

provides fast and long-lasting cough control

relieves cough in 15-20 minutes • lasts 6 hours or longer • promotes expectoration and decongestion of air passages • rarely constipates • agreeably cherry-flavored

Each teaspoonful (5 cc.) of HYCOMINE Syrup contains:

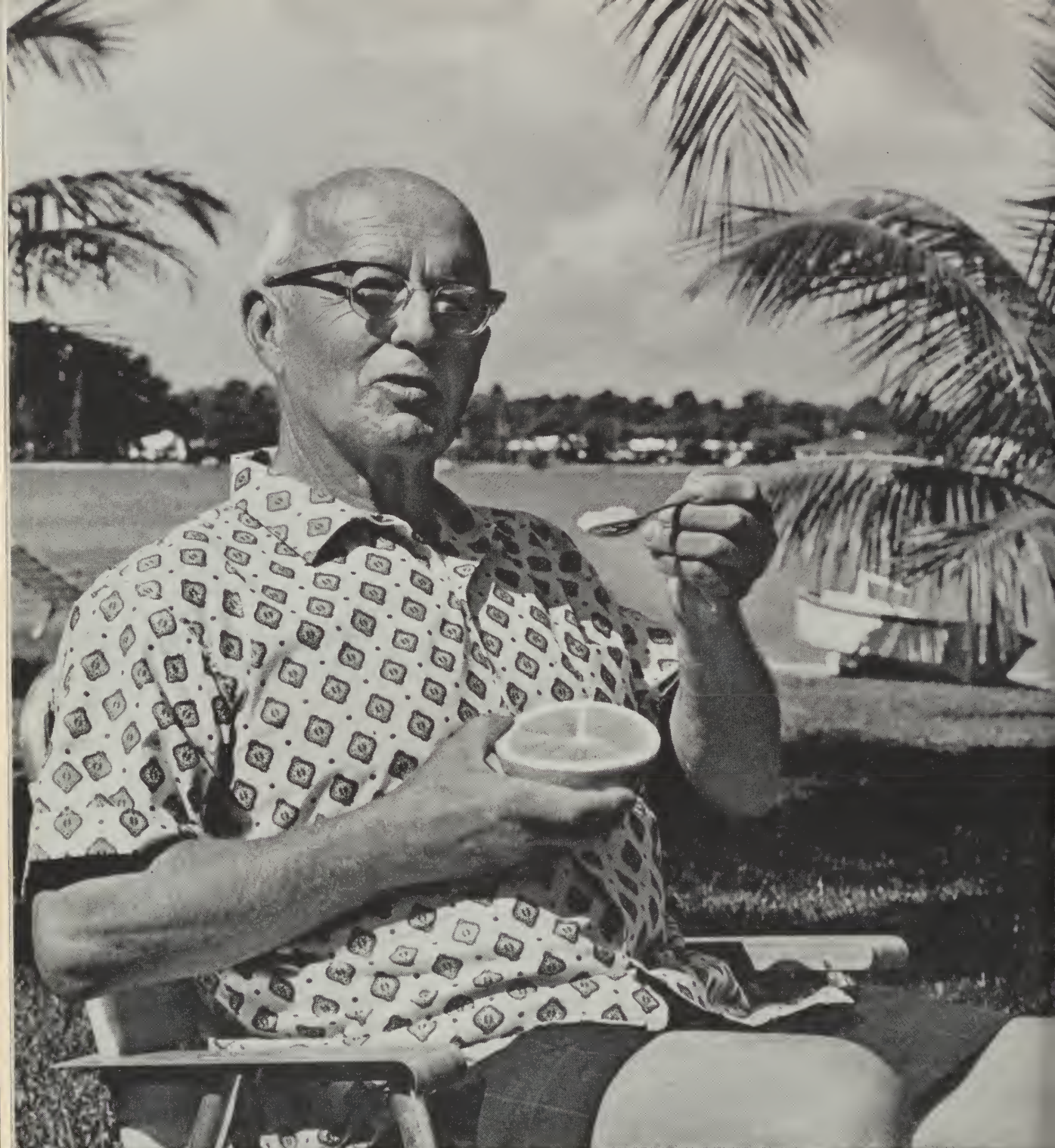
Hycodan®	6.5 mg.
Dihydrocodeinone Bitartrate	5 mg.
(Warning: May be habit-forming)	
Homatropine Methylbromide	1.5 mg.
Pyrilamine Maleate	12.5 mg.
Phenylephrine Hydrochloride	10 mg.
Ammonium Chloride	60 mg.
Sodium Citrate	85 mg.

Average adult dose: One teaspoonful after meals and at bedtime. May be habit-forming. On oral prescription where state laws permit. U.S. Pat. 2,630,400.

Literature on request

Endo®

ENDO LABORATORIES
Richmond Hill 18, New York



The good life–just what the doctor ordered

Sea and sun are both in his doctor's orders — so is that grapefruit he's eating with such gusto. Citrus fruit is a wonderful way for this patient or any patient to get his daily quota of vitamin C . . . to enjoy something good to eat, tasty and satisfying but not rich.

Not all patients are so lucky as to have retired to Florida, where they can just reach out to pick citrus fruit off their own orange and grapefruit trees. But any patient anywhere can get the same benefits of the natural vitamin C in Florida oranges, grapefruit, and tangerines . . . thanks to modern methods of processing fresh fruit. Whether it is frozen, canned, or in cartons, 98% of the vitamin C content of the fruit is preserved.

Grapefruit and other citrus fruits filled with vitamin C are valuable in the nutrition of every age group. Among the teen-agers, vitamin C is one of the two nutrients most often low in the diet. Infants, too, need generous amounts of vitamin C; and they will take it read when it comes to them in the form delicious orange juice.

When your patient chooses *Flor* citrus, he can be sure of getting fruit fil with natural goodness and of just right sweetness. Florida citrus is un celled because a State commissi watches over the entire Florida cit crop to see that it meets the world's hi est standards for fresh, frozen, cann or cartoned citrus fruits or juices.

© Florida Citrus Commission, Lakeland, Florida

Inhibiting effects of smoke constituents on Ciliary Function

●

Phenolic components in the smoke from various types of cigarettes

●

Effects of selective filtration of Phenol by an improved Micronite Filter treated with PFA-17

Introduction of the KENT Micronite filter in 1952 marked a notable achievement of Lorillard research and led to widespread consumer preference for filter cigarettes. Continuing scientific studies conducted at Lorillard Research Laboratories encompass rigorous investigation of cigarette smoke composition, modification of smoke by effective filtration, and effects of smoke per se as well as of its specific constituents. The most recent outcome of such research is an improved KENT Micronite filter with enhanced ability to remove selectively specific undesirable components of smoke. A brief summary of research which led to this development is given below for the information of those who may be interested.

Studies of Effects of Smoke on Ciliary Function

Various materials including cigarette smoke have been reported to inhibit ciliary function. Cilia are microscopic hairs projecting from specialized cells found in a wide variety of organisms. Cilia beat in rhythmic

unison to create wave-like motion. The effect of these sweeping movements is to propel surrounding fluids steadily in one direction. In man, as in other animals, cilia of the respiratory tract are associated with secretory cells which provide a thin film of mucus that is kept flowing by ciliary action. Inhaled foreign particles become trapped in the mucus or on its surface. The biological function of respiratory cilia is to transport foreign particles away from the lung area on steadily flowing mucus currents.

Ciliated cells of various organisms are physiologically quite similar. Ciliated tissues from the mouth and esophagus of the frog have traditionally been used in studies of ciliary function. Lorillard researchers developed a carefully standardized technique for study of ciliated tissues of the frog exposed to various environmental conditions, such as cigarette smoke.

In these studies, the tissue preparation is placed in the exposure chamber of a specially designed instrument through which laboratory air or smoke is drawn in calibrated volumes. The tissue is first exposed to laboratory air and at the end of a 30-minute equilibration period is transferred to a humidified observation chamber and placed under a microscope at 30x magnification. Fine carbon particles placed at one end of the tissue flow toward the opposite end and give a visual determination of the rate of mucus flow, an index of ciliary action. The time required for particles to flow 2.5 mm. is recorded as the norm or control rate. The tissue is then exposed to measured puffs from a test cigarette and again observed under a microscope to measure the rate of mucus flow after exposure. Comparison of the control rate with the exposure rate of mucus flow gives a measurement of the inhibiting effect of smoke on ciliary function.

Accurate Analysis of Phenol Content of Smoke

Numerous investigators have reported the presence of phenolic compounds in cigarette smoke. Lorillard researchers have studied phenol and other smoke constituents for a number of years. This research was greatly accelerated in 1960 when Lorillard scientists perfected a rapid, accurate method for quantitative measurement of phenol in smoke, employing gas chromatography and phenol labeled with Carbon 14. A number of phenolic compounds were identified in cigarette smoke, but phenol itself was the major chemical component of the group.

Investigation established that about 80% of the phenol in smoke occurs in the particulate matter, the rest in the gaseous phase. Tests of popular cigarette brands showed marked variations in phenol content of the smoke. Unfiltered smoke contains 2 to 4 parts of phenol per thousand parts of "tar." Filtered smoke is significantly lower in phenol content, but substantial differences in screening efficiency of various filters were apparent. The range is indicated by the following table of quantitative tests on three popular brands of cigarettes:

Micrograms of Phenol per cigarette

A leading non-filter brand	105 mcg.
A leading filter brand	35 mcg.
KENT with Micronite Filter (untreated)	24 mcg.

Mechanisms of Phenol Reduction in Cigarette Smoke

Employing a rapid technique of accurate phenol analysis, and using frog tissues as sensitive test-organs, Lorillard researchers initiated comparative studies under the observation of an independent biologist of cilia-depressing effects of the smoke from various types of cigarettes. Repeated observations of rates of mucus flow in excised esophageal tissue of the frog consistently gave the same result: *the more phenol in the smoke, the greater the slowdown of mucus transport,* reflecting depression of cilia. This unexpected finding indicated that cilia depression is not a non-specific effect of smoke per se, but a reaction to a specific type of chemical compound.

Certain filters, such as the KENT Micronite filter, screened out more phenol than could be accounted for by the volume of particulate matter and gases removed. Researchers theorized that some mechanism for selective filtration of phenol probably existed, and that selective removal of phenolic irritants might be potentiated by a filter of more efficient design. A physicochemical mechanism which could make phenol accessible for selective filtration was postulated as follows:

Vapor components of smoke condense on a solid nucleus, such as a carbon particle or ash fragment in the gas stream of a burning cigarette. In the same manner, water vapor condenses on a dust particle to form a raindrop. Heterogeneous vapors condense upon a nucleus in inverse order to their volatility. The resulting spherical particle is composed of concentric strata, with the least volatile materials at the core and the most volatile substances at the surface. Phenol, a relatively volatile compound, would be expected to be concentrated on the surface of a particle and to be susceptible to easy removal by appropriate materials.

Selective Removal of Phenol by a New Micronite Filter Containing a Phenol-Combining Additive

Phenol enters readily into innumerable chemical unions. Lorillard researchers sought a compound which would combine with and capture phenol, and be safe and effective as a filter ingredient. Many compounds were studied and tested. One bearing laboratory designation PFA-17 satisfied the most exacting criteria and was immediately tested with KENT's Micronite filter.

The effectiveness on mucus flow of the new Micronite filter with PFA-17 compared with other brands is shown on the following chart:

MUCUS FLOW RATE

Relationship of phenol to inhibition of ciliary function

	Phenol (micrograms per cigarette)	Relative Rate of Mucus Flow
Tissue exposed to laboratory air	—	100 (basal rating)
Cigarette A (filter)	34	33
Cigarette B (filter)	35	33
Cigarette A (non-filter)	104	17
Cigarette B (non-filter)	108	17
KENT Micronite filter (untreated)	24	50
New KENT Micronite filter with PFA-17	12	96

It will be seen that under the described conditions of the experiment there is a direct relationship between the reduction of cilia depression (reflected in mucus flow rate) and the reduction in phenol content of smoke. An arbitrary index rating of 100 is given to the flow rate of tissue exposed to air; decrements in flow rate following exposure to smoke are measured on this scale. The mucus flow rate of tissue exposed to smoke from the new Micronite filter is essentially the same as when cilia are exposed to laboratory air. Under identical conditions, exposure to smoke of a leading filter cigarette results in an approximate 67% slowdown of mucus flow, and exposure to a leading non-filter cigarette results in an 83% slowdown.

Lorillard research has established that phenol is the major constituent of the phenolic group of compounds in cigarette smoke which depress ciliary propelled mucus flow. A highly effective method of selective filtration of phenols by addition of a phenol-combining agent to an acetate filter is reported. KENT cigarettes contain the new Micronite filter with PFA-17, pursuant to Lorillard policy of continuous improvement of products through research.

P. LORILLARD RESEARCH LABORATORIES

©1962 P. Lorillard

ANNUAL CLINICAL CONFERENCE

CHICAGO MEDICAL SOCIETY

March 4, 5, 6 and 7, 1963

Palmer House, Chicago

Daily Half-Hour Lectures by Outstanding Teachers and Speakers on subjects of interest to both general practitioner and specialist.

Panels on Timely Topics

Teaching Demonstrations

Medical Color Telecasts

Instructional Courses

Film Lectures

Scientific Exhibits worthy of real study and helpful and time-saving Technical Exhibits.

The Chicago Medical Society Annual Clinical Conference should be a MUST on the calendar of every physician. Plan now to attend and make your reservations at the Palmer House.

APPALACHIAN HALL

ESTABLISHED — 1916

ASHEVILLE NORTH CAROLINA



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.

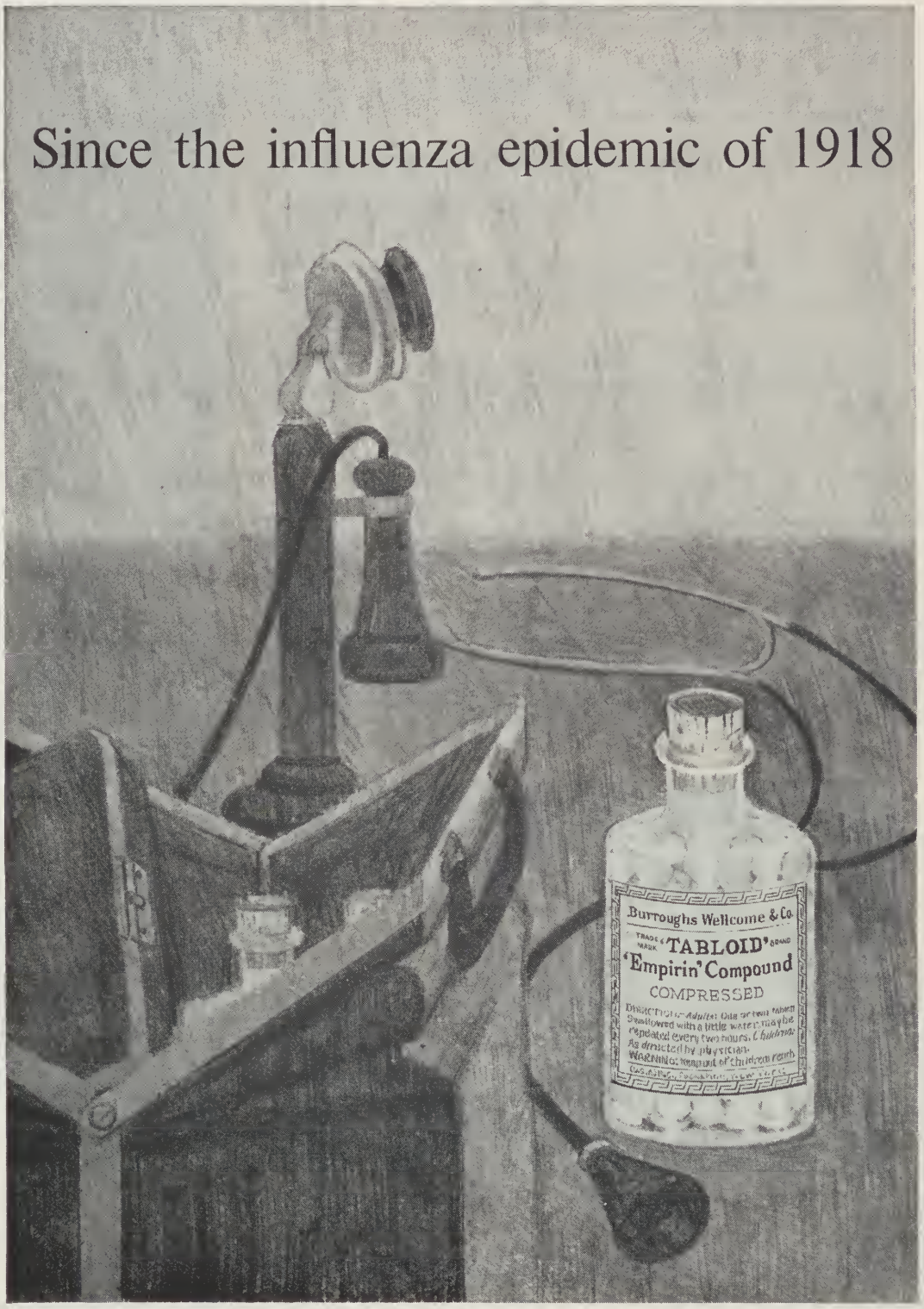
Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.

Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

WM. RAY GRIFFIN, JR., M.D.
ROBERT A. GRIFFIN, M.D.

MARK A. GRIFFIN, SR., M.D.
MARK A. GRIFFIN, JR., M.D.

For rates and further information, write: APPALACHIAN HALL, ASHEVILLE, N. C.


Since the influenza epidemic of 1918
Burroughs Wellcome & Co.
TRADE MARK 'TABLOID' BRAND
'Empirin' Compound
COMPRESSED

....the first choice of many physicians to relieve aches, pains, fever, and general malaise of colds and flu.

Symptomatic and supportive treatment of patients with upper respiratory infections still consists largely of rest, analgesics, fluids and nasal decongestants. During the fateful influenza epidemic of 1918, 'Empirin' Compound was widely used and became well known as a well tolerated and reliable analgesic combination. It was one of the few available analgesic products effective in simultaneously reducing fever and relieving the general malaise which often accompany the flu.

Later, 'Empirin' Compound with Codeine took its place with the widely used 'Empirin' Compound, as a product useful when increased analgesia or antitussive action was desired. Today, 'Empirin' Compound with Codeine is one of the most widely prescribed drugs in medicine, providing physicians with a dependable analgesic, especially useful in relieving the symptoms of colds and flu. We believe you will also find 'Empirin' Compound with Codeine Phosphate gr. ¼ (16 mg.) or gr. ½ (32 mg.) particularly useful in treating the troublesome cough that is often part of the influenza symptom complex.

'EMPIRIN' COMPOUND with CODEINE PHOSPHATE *



* Available on oral prescription where State law permits. Subject to Federal Narcotic Regulations.

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N.Y.

CAN YOU GUARANTEE THAT YOU WON'T BE INVOLVED IN AN ACCIDENT TONIGHT?

Of course not.

But WE GUARANTEE that if you are ever disabled through accident or sickness, we'll PAY YOU EACH MONTH. Wise physicians and dentists are protecting themselves against "Loss of Time" with us.

For full details, without obligation, send the coupon below — TODAY!

PHYSICIANS MUTUAL INSURANCE COMPANY

formerly

Physicians Casualty and Health Associations

"The Doctors Company"

Insuring Physicians & Dentists for 60 years.

Physicians Mutual Insurance Company
115 So. 42nd Street
Omaha 31, Nebraska

Please send me details on your insurance protection plans.

NAME_____ AGE_____

ADDRESS_____

CITY_____ STATE_____

Burdick

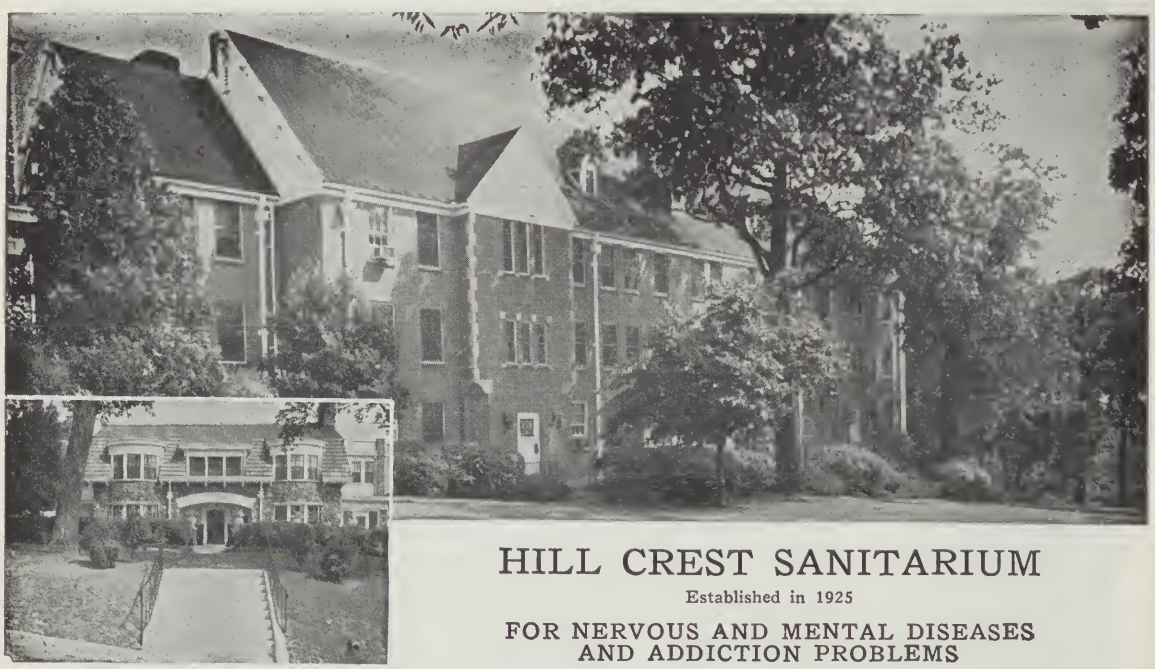


DIRECTED, DEEP-TISSUE HEATING WITH THE MW-1 MICROWAVE UNIT

The MW-1's simplicity of operation and ease of electrode application have contributed much to the popularity of microwave diathermy. Microwave radiations can be reflected, focused and directed. Treatment intensities may be preset.

Write us for descriptive literature and complete price information.

KAY SURGICAL INC.
663 North State St. • Jackson, Miss.



Out-Patient Clinic and Offices

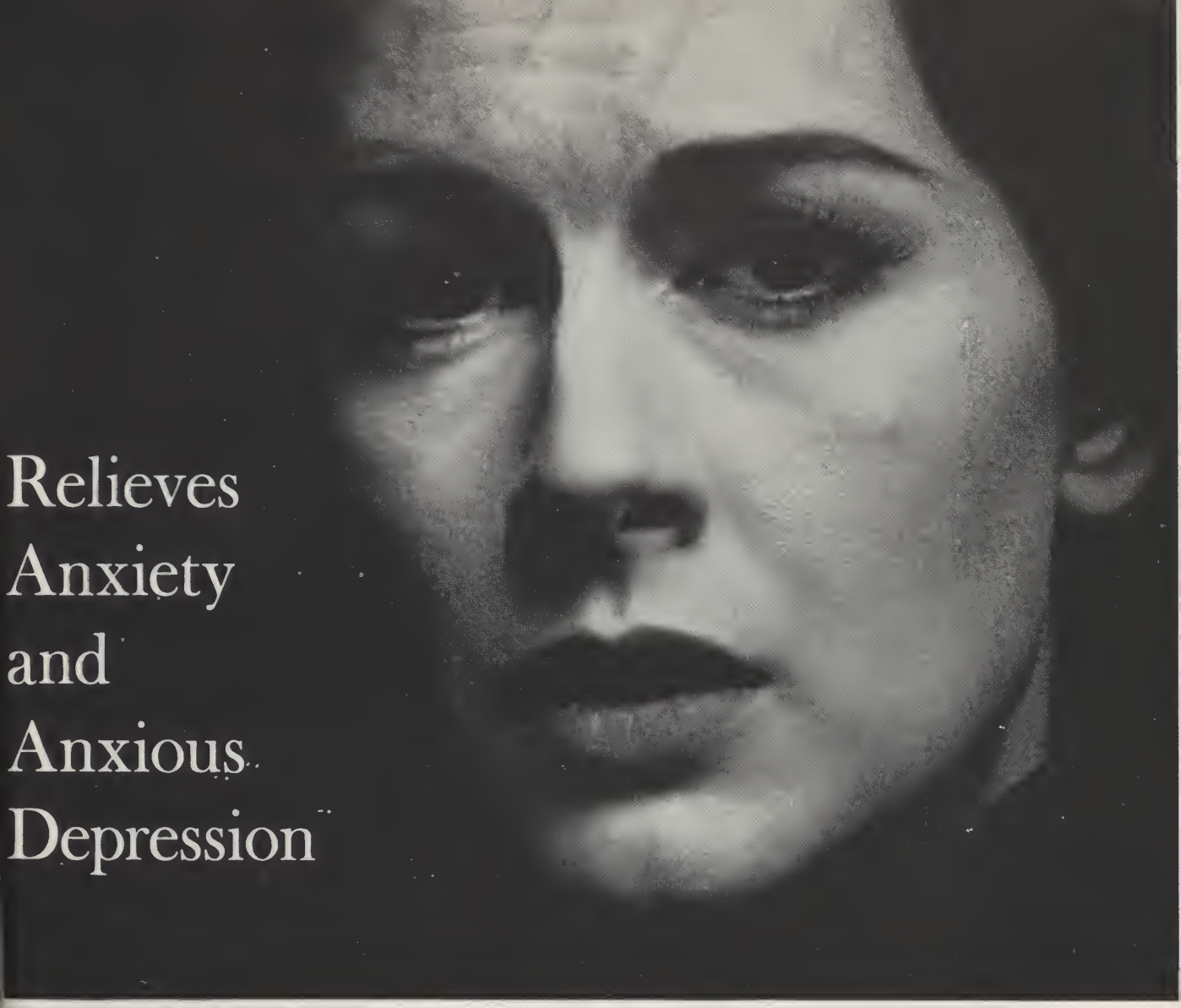
HILL CREST SANITARIUM

Established in 1925

FOR NERVOUS AND MENTAL DISEASES AND ADDICTION PROBLEMS

James A. Becton, M.D. James Keen Ward, M.D.

P. O. Box 2896, Woodlawn Station, Birmingham 6, Ala. Phone 595-1151 and 595-1152



Relieves Anxiety and Anxious Depression

The outstanding effectiveness and record of safety with which Miltown relieves anxiety and anxious depression—the type of depression in which either tension or nervousness or insomnia is a prominent symptom — has been clinically authenticated time and again during the past seven years. This, undoubtedly, is one reason why physicians still prescribe meprobamate more often than any other tranquilizer in the world.

Miltown®

meprobamate (Wallace)

Usual dosage: One or two 400 mg. tablets t.i.d.

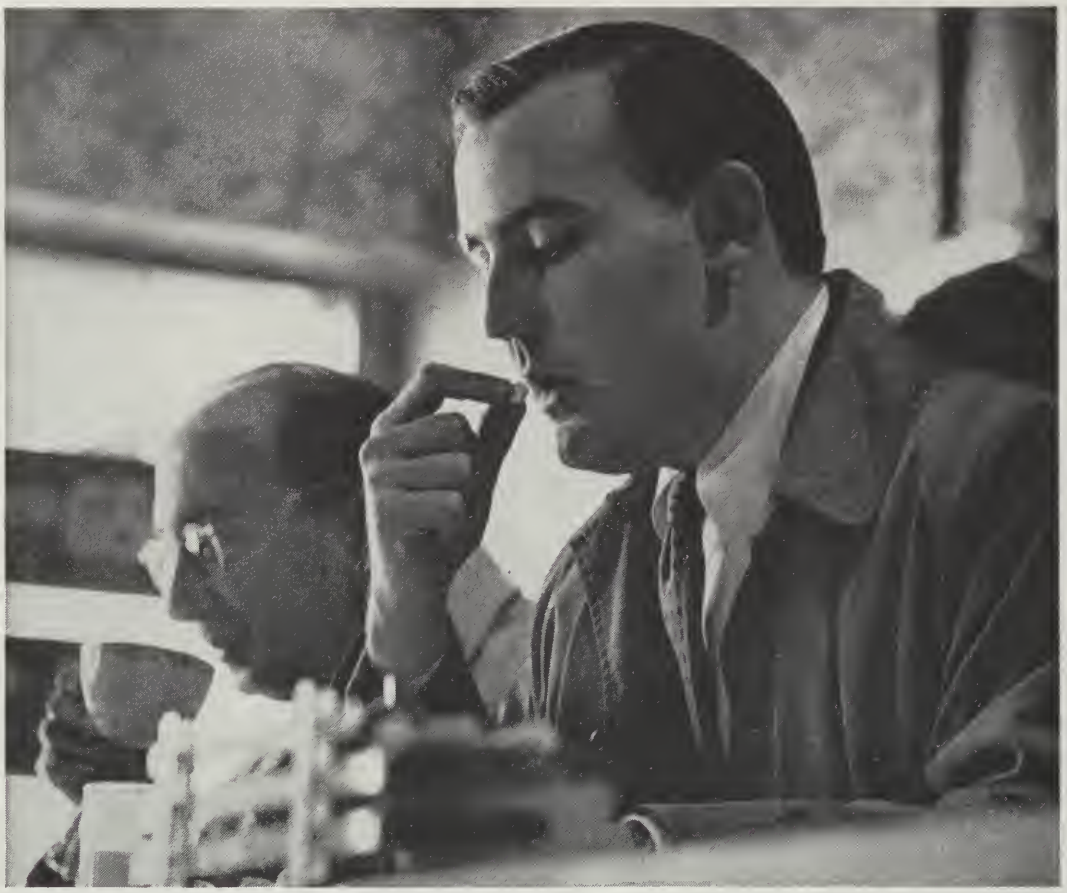
Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50. Also as MEPROTABS® — 400 mg. *unmarked,* coated tablets; and in *sustained-release* capsules as MEPROSPAN®-400 and MEPROSPAN®-200 (containing respectively 400 mg. and 200 mg. meprobamate).

WALLACE LABORATORIES / *Cranbury, N. J.*

Clinically proven in over 750 published studies

1. Acts dependably — without causing ataxia or altering sexual function
2. Does not produce Parkinson-like symptoms or liver damage
3. Does not muddle the mind or impair physical activity

7381



For peptic ulcer gastric hyperacidity and gastritis...

In year-long study on peptic-ulcer patients

New Creamalin®
Antacid Tablets

*"...faster in onset of action...and for a longer period"**

"Clinical studies in 85 patients with duodenal ulcer ...confirmed the superiority of the new preparation [new Creamalin] over standard aluminum hydroxide preparations, in that prompt relief was achieved and maintained throughout the period of observation."*

Patients were followed for about one year.

New Creamalin promotes ulcer healing, permits less frequent feedings because it is so long-acting. Heartburn and epigastric distress were "...easily and adequately controlled...."* New Creamalin has the therapeutic advantage of a liquid antacid with the convenience of a palatable tablet. *It does not cause constipation.*

Each new Creamalin tablet contains 320 mg. of specially processed highly reactive dried aluminum gel (stabilized with hexitol) with 75 mg. of magnesium hydroxide. Minute particles offer a vastly increased surface area.

Dosage: Gastric hyperacidity—from 2 to 4 tablets as needed. Peptic ulcer or gastritis—from 2 to 4 tablets every two to four hours. *How Supplied:* Bottles of 50, 100, 200 and 1000.

Now also available—New Creamalin Improved Formula Liquid. Pleasant mint flavor—creamy pink color. Stabilized reactive aluminum and magnesium hydroxide gel (1 teaspoon equals 1 tablet). Bottles of 8 and 16 fl. oz.

Creamalin, trademark reg. U.S. Pat. Off

*Schwartz, I. R.:
Current Therap. Res. 3:29, Feb., 1961.

Winthrop LABORATORIES New York 18, N. Y.

INDEX TO ADVERTISERS

In accepting advertising for publication, the JOURNAL has exercised reasonable precaution to insure that only reputable, factual advertisements are included. Nevertheless, claims made by advertisers in behalf of goods, services, and medicinal preparations, apparatus or physical appliances are understood to be those of the advertiser. Neither sanction nor endorsement of such is warranted, stated, or implied by the association.

	Adv. page
Abbott Laboratories	insert
American Tobacco Company	23
Ames Company	53
Appalachian Hall	45
Blue Cross	15
Burroughs Wellcome	8, 46, 47
Chicago Medical Society	45
Ciba Products	10
Endo Laboratories	43
First Federal of Jackson	19
Fesler Company	35
J. H. Filbert, Inc.	32
First Texas Pharmaceuticals	12
Florida Citrus Commission	44
General Electric	34
General Mills	20
Glenbrook Laboratories	11
Hill Crest Sanitarium	48
Kay Surgical	48
Lederle Laboratories	6, 7, 41, 52
Thomas Leeming and Company	9
Eli Lilly	front cover, 28, 30
P. Lorillard Company	insert
Mission Pharmacal Company	35
Parke, Davis and Company	2, 3
Pfizer Laboratories	16, 17
Physicians Mutual Insurance Company	48
William P. Poythress	40
A. H. Robins	14
Roche Laboratories	54
Roerig	39
St. Paul Fire and Marine Insurance Company	33
Schering Corporation	27
G. D. Searle	29
Smith Kline & French	22, 42
U. S. Brewers	25
U. S. Vitamin	26
Upjohn Company	21, 36, 37
Wallace Laboratories	13, 18, 49
Winthrop Laboratories	4, 24, 31, 38, 50

Articles for Publication

Manuscripts should be typewritten, double spaced on one side of the paper. Tables, charts, and tabulations should be submitted on separate sheets but their position in the text should be indicated. Authors are encouraged to limit bibliographies to 10 references, written in conformation to style utilized in scientific publications of the American Medical Association. Articles are accepted for publication on the condition that they have not been previously published and are contributed solely to this JOURNAL.

A thesis summary of 75 to 100 words must accompany each manuscript separately from the text. Figures and drawings are acceptable when prepared with black ink on white paper. Photographs for illustrations should be unmounted, untrimmed, glossy prints and all such material must be identified. No charges are made to authors for illustration engravings not exceeding four column inches per printed page.

Reprints may be obtained at cost from the association. The right is reserved to decline any manuscript for publication. Ordinarily, manuscripts submitted will be acknowledged whether published or not.



CLASSIFIED

Well-trained general practitioner wanted by growing group in central Mississippi community. Complete city advantages for practice and family. Income commensurate with willingness to work. Write, giving full personal and professional details, to Dept. 216, JOURNAL MSMA, 735 Riverside Drive, Jackson.

General surgeon needed to affiliate with group. Good professional practice circumstances in mid-state area. Fine schools, churches, recreation for doctor's family. Ample financial return for competent, energetic man. Write, giving full personal and professional details, to Dept. 217, JOURNAL MSMA, 735 Riverside Drive, Jackson.



in arthritis: vitamins are therapy

In dealing with the chronic stress of arthritis the physician often faces the problem of nutritional imbalance. High potency B and C supplementation is needed for rapid replenishment of tissue stores of these water-soluble vitamins. STRESSCAPS meet this need and help support the natural metabolic defenses in the disease. Supplied in decorative "reminder" jars of 30 and 100.

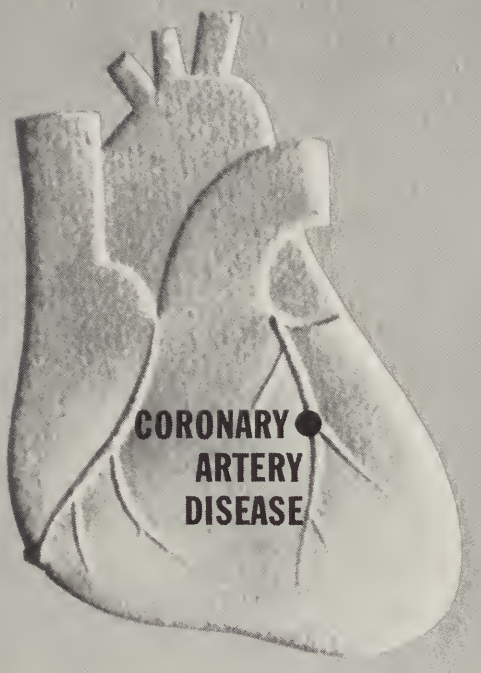
Each capsule contains:	
Vitamin B_1 (Thiamine Mononitrate)	10 mg
Vitamin B_2 (Riboflavin)	10 mg
Niacinamide	100 mg
Vitamin C (Ascorbic Acid)	300 mg
Vitamin B_6 (Pyridoxine HCl)	2 mg
Vitamin B_{12} Crystalline	4 mcgm
Calcium Pantothenate	20 mg

Recommended intake: Adults, 1 capsule daily or as directed by physician, for the treatment of vitamin deficiencies.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

STRESSCAPS®

Stress Formula Vitamins Lederle



• "...now the leading cause of death in diabetic patients."[1]

Diseases of the cardiovascular-renal system account for about three-fourths of deaths among diabetic patients, with heart disease responsible for approximately one-half the total,[2,3] and coronary atherosclerosis the major cause of cardiac lesions.[1] While some feel that diabetics are predisposed, perhaps by heredity, to early onset of vascular disease, considered opinion is that vascular degeneration can be delayed or modified with "...careful and consistent control of diabetes from the time of diagnosis...."[4]

As a major step toward achieving *careful and consistent control,* you can teach your patients to do urine-sugar testing in the way most likely to assure continued cooperation—with the CLINITEST® Urine-Sugar Analysis Set.

for quantitative estimation

color-calibrated

clinitest®

urine sugar

- continued, close control
- graphic *Analysis Record* encourages cooperation...reveals degree of control at a glance...helps patient maintain control

for "yes-or-no" enzymatic testing

new, improved

DIP AND READ **clinistix®**

urine glucose

10-second reading...longer strip for easier handling...new color chart and color barrier for test area...in glass for protection

Supplied: CLINITEST Urine-Sugar Analysis Set (with bottle of 36 tablets and 2 foil-wrapped tablets); refill boxes of 24 Sealed-in-Foil Reagent Tablets and bottles of 36 tablets. CLINISTIX Reagent Strips in bottles of 60.

References: (1) Root, H. F., and Bradley, R. F., in Joslin, E. P.; Root, H. F.; White, P., and Marble, A.: The Treatment of Diabetes Mellitus, ed. 10, Philadelphia, Lea & Febiger, 1959, pp. 411, 437. (2) Joslin, E. P.; Root, H. F.; White, P., and Marble, A.: *ibid.,* pp. 188-189. (3) Marks, H. H., *et al.:* Diabetes *9*:500, 1960. (4) Marble, A., in Summary of Conference on Diabetic Retinopathy, Survey Ophth. (Part 2) *6*:611-612, 1961.

AMES
COMPANY, INC
Elkhart • Indiana
Toronto • Canada

AMES *products are available through your regular supplier.*

21462

LIBRARIAN
NAT LIBRARY OF MED
WASHINGTON 25 D C

specific for anxiety & tension

Librium

The singular specificity of Librium in controlling anxiety and tension has proven to be an advantage in a wide range of disorders characterized by anxiety of varying degrees. Notably effective in patients whose symptoms are primarily emotional, Librium is equally valuable when organic disease is aggravated or prolonged by accompanying anxiety. Coupled with its effectiveness is an outstanding record of safety. Librium has few, if any, of the unwanted side effects associated with tranquilizers and daytime sedatives—no extrapyramidal effects, no autonomic blocking, and no dulling of mental alertness. Consult literature and dosage information, available on request, before prescribing.

the successor to the tranquilizers

LIBRIUM® Hydrochloride—7-chloro-2-methylamino-5-phenyl-3H-1,4-benzodiazepine 4-oxide hydrochloride

ROCHE

ROCHE

JOURNAL OF THE Mississippi STATE MEDICAL ASSOCIATION

DECEMBER 1962

ASTHMA—
A CLASSIC
INDICATION
FOR
HALDRONE®
(paramethasone acetate, Lilly)

alrone produces rapid re-
ison of the symptoms of
thma and controls the pa-
tient over extended periods with relative freedom from side-effects. In recommended dosage, Haldrone is unlikely to cause sodium retention and has little or no effect on potassium excretion.

Suggested daily dosage for asthma:
Initial suppressive dose . . . . . 6-12 mg.
Maintenance dose. . . . . 2-6 mg.
Supplied in bottles of 30, 100, and 500 tablets: 1 mg., Yellow (scored), and 2 mg., Orange (scored).

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana. 240120

Lilly

This Month . . . Virus Diseases, Thoracic Trauma, Use of Steroids in Rheumatoid Arthritis, Quackery, Volume III Index

M.S.M.A.

when urinary tract infections present a therapeutic challenge...

CHLOROMYCETIN®

(chloramphenicol, Parke-Davis)

Often recurrent...often resistant to treatment, urinary tract infections are among the most frequent and troublesome types of infections seen in clinical practice.[1,2] In such infections, successful therapy is usually dependent on identification and susceptibility testing of invading organisms, administration of appropriate antibacterial agents, and correction of obstruction or other underlying pathology.

Of these agents, one author reports: "Chloramphenicol still has the widest and most effective activity range against infections of the urinary tract. It is particularly useful against the coliform group, certain Proteus species, the micrococci and the enterococci."[1] CHLOROMYCETIN is of particular value in the management of urinary tract infections caused by *Escherichia coli* and *Aerobacter aerogenes*.[3] In addition to these clinical findings, the wide antibacterial range of CHLOROMYCETIN continues to be confirmed by recent *in vitro* studies.[4-6]

CHLOROMYCETIN (chloramphenicol, Parke-Davis) is available in various forms, including Kapseals® of 250 mg., in bottles of 16 and 100. See package insert for details of administration and dosage.

Warning: Serious and even fatal blood dyscrasias (aplastic anemia, hypoplastic anemia, thrombocytopenia, granulocytopenia) are known to occur after the administration of chloramphenicol. Blood dyscrasias have occurred after both short-term and prolonged therapy with this drug. Bearing in mind the possibility that such reactions may occur, chloramphenicol should be used only for serious infections caused by organisms which are susceptible to its antibacterial effects. Chloramphenicol should not be used when other less potentially dangerous agents will be effective, or in the treatment of trivial infections, such as colds, influenza, or viral infections of the throat, or as a prophylactic agent. *Precautions:* It is essential that adequate blood studies be made during treatment with the drug. While blood studies may detect early peripheral blood changes, such as leukopenia or granulocytopenia, before they become irreversible, such studies cannot be relied upon to detect bone marrow depression prior to development of aplastic anemia.

References: (1) Malone, F. J., Jr.: *Mil. Med.* **125**:836, 1960. (2) Martin, W. J.; Nichols, D. R., & Cook, E. N.: *Proc. Staff Meet. Mayo Clin.* **34**:187, 1959. (3) Ullman, A.: *Delaware M. J.* **32**:97, 1960. (4) Petersdorf, R. G.; Hook, E. W.; Curtin, J. A., & Grossberg, S. E.: *Bull. Johns Hopkins Hosp.* **108**:48, 1961. (5) Jolliff, C. R.; Engelhard, W. E.; Ohlsen, J. R.; Heidrick, P. J., & Cain, J. A.: *Antibiotics & Chemother.* **10**: 694, 1960. (6) Lind, H. E.: *Am. J. Proctol.* **11**:392, 1960.

68961

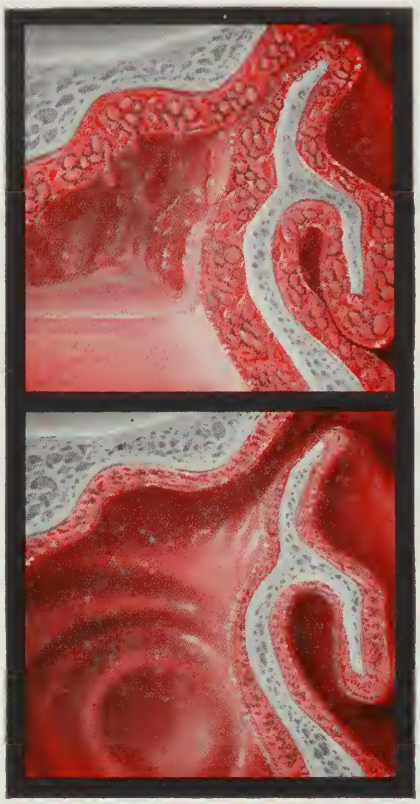
PARKE-DAVIS

PARKE, DAVIS & COMPANY, Detroit 32, Michigan



In colds and sinusitis

unsurpassed in providing drainage space without chemical harm



The clogged sinus
In sinusitis, the mucous membrane becomes hyperemic and edematous, lymph glands and goblet cells hyperactive. Ostium is closed by edema and secretions cannot drain freely.

The normal sinus
Magnified anatomy of a portion of maxillary sinus showing mucous membrane with cilia and lymph glands. Ostium is normal and patent.

NEO-SYNEPHRINE®

brand of phenylephrine hydrochloride

hydrochloride

NASAL SPRAYS AND SOLUTIONS

When there is nasal turgescence, tiny orifices of sinus ostia tend to clog. Neo-Synephrine nasal solutions and sprays reduce edematous tissues on contact to provide prompt relief. As turbinates shrink, obstructed sinus ostia open, drainage and breathing become freer and the boggy feeling of a cold disappears.

Delicate respiratory tissue and its natural defenses are not harmed by exceptionally bland Neo-Synephrine; systemic effects are nil; it does not sting. For years it has been recommended for prevention and treatment of sinusitis.[1-3] Repeated applications do not lessen effectiveness.

Available in plastic nasal sprays for adults (½%) and children (¼%), in dropper bottles of ⅛, ¼ or 1 per cent.

1. Grant, L. E.: Coryza and nasal sinus infections, **Clin. Med. & Surg.** 42:121, March, 1935. 2. Putney, F. J.: Sinus infection, in Conn, H. F. (Ed.): Current Therapy 1952, Philadelphia, W. B. Saunders Company, 1952, p. 110. 3. Simonton, K. M.: Current treatment of sinusitis, **Journal-Lancet** 79:535, Dec., 1959.

Winthrop LABORATORIES
New York 18, N.Y.

Volume III
Number 12
December 1962



JOURNAL of the Mississippi
STATE MEDICAL ASSOCIATION

• EDITOR
WILLIAM M. DABNEY, M.D.

• ASSOCIATE EDITORS
DEWITT HAMRICK, M.D.
GEORGE H. MARTIN, M.D.

• MANAGING EDITOR
ROWLAND B. KENNEDY

• EDITORIAL ASSISTANT
BETTY M. SADLER

• PUBLICATIONS COMMITTEE
LAWRENCE W. LONG, M.D.
Chairman
B. B. O'MARA, M.D.
WILLIAM E. LOTTERHOS, M.D.
and the Editors

• THE ASSOCIATION
C. P. CRENSHAW, M.D.
President
JOHN G. ARCHER, M.D.
President-elect
C. G. SUTHERLAND, M.D.
Secretary-Treasurer
B. B. O'MARA, M.D.
Speaker
HOWARD A. NELSON, M.D.
Vice Speaker
ROWLAND B. KENNEDY
Executive Secretary
CHARLES L. MATHEWS
Assistant Executive Secretary

The JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION is owned and published by the Mississippi State Medical Association, founded 1856. Editorial, executive, and business offices, 735 Riverside Drive, Jackson, Mississippi; office of publication, 1201-5 Bluff Street, Fulton, Missouri. Subscription rate, $5 per annum; $1 per copy, as available. Advertising rates furnished on request. Second-class postage paid at the post office at Fulton, Missouri.

CONTENTS

ORIGINAL PAPERS

Use of Steroids in Rheumatoid Arthritis **535** GLENN M. CLARK, M.D.

Thoracic Trauma **540** WILLIAM G. PACE, M.D.

Virus Diseases—Crippling Effects and Recent Research **543** DANIEL BERGSMA, M.D.

SPECIAL ARTICLES

Radiologic Seminar VIII: Foreign Bodies in the Esophagus **546** TOM B. DOMINICK, M.D.

CPC XXXV **548** University of Mississippi

Caution: Quacks Ahead **554** C. P. CRENSHAW, M.D.

EDITORIALS

The Phony Case Against Hospital Usage **557** Facts to Hang Your Hat On

Hoddy Toddy! **558** Ole Miss Poll

That AMAzing Outfit **558** Report of Activities

THIS MONTH

The President Speaking **560** 'You Bring the Ducks'

The Literature **561** Books and Journals

Medical Organization **563** MSMA-DGB Voluntary Retirement Program

Copyright 1962, Mississippi State Medical Association

When you choose an anorectic—

"Does it help the patient maintain the proper diet, is it free of dangerous side effects, and does the patient like it?"[1]

Perhaps you'll find, as Stevenson did, "['Eskatrol'] seems to meet these criteria better than most."

1. Stevenson, L.E.: M. Ann. District of Columbia *30*:409 (July) 1961.



ESKATROL®
SPANSULE®
brand of sustained release capsules

PRESCRIBING INFORMATION

Formula: Each 'Eskatrol' *Spansule* sustained release capsule contains Dexedrine® (brand of dextro amphetamine sulfate), 15 mg., and Compazine® (brand of prochlorperazine), 7.5 mg., as the dimaleate.

Recommended Dosage: One 'Eskatrol' *Spansule* capsule daily, taken in the morning.

Side Effects: Side effects (chiefly nervousness and insomnia) are infrequent, and usually mild and transitory.

Cautions: Clinical experience has demonstrated that 'Eskatrol' (containing the phenothiazine derivative, prochlorperazine) has a wide margin of safety and that there is little likelihood of blood or liver toxicity or neuromuscular reactions (extrapyramidal symptoms). The physician should be aware, however, of their possible occurrence.

'Eskatrol' *Spansule* capsules should be used with caution in the presence of severe hypertension, advanced cardiovascular disease, or extreme excitability.

Prescribing information adopted Jan. 1961

Smith Kline & French Laboratories SK&F



Relieves Anxiety and Anxious Depression

The outstanding effectiveness and record of safety with which Miltown relieves anxiety and anxious depression—the type of depression in which either tension or nervousness or insomnia is a prominent symptom — has been clinically authenticated time and again during the past seven years. This, undoubtedly, is one reason why physicians still prescribe meprobamate more often than any other tranquilizer in the world.

Miltown®

meprobamate (Wallace)

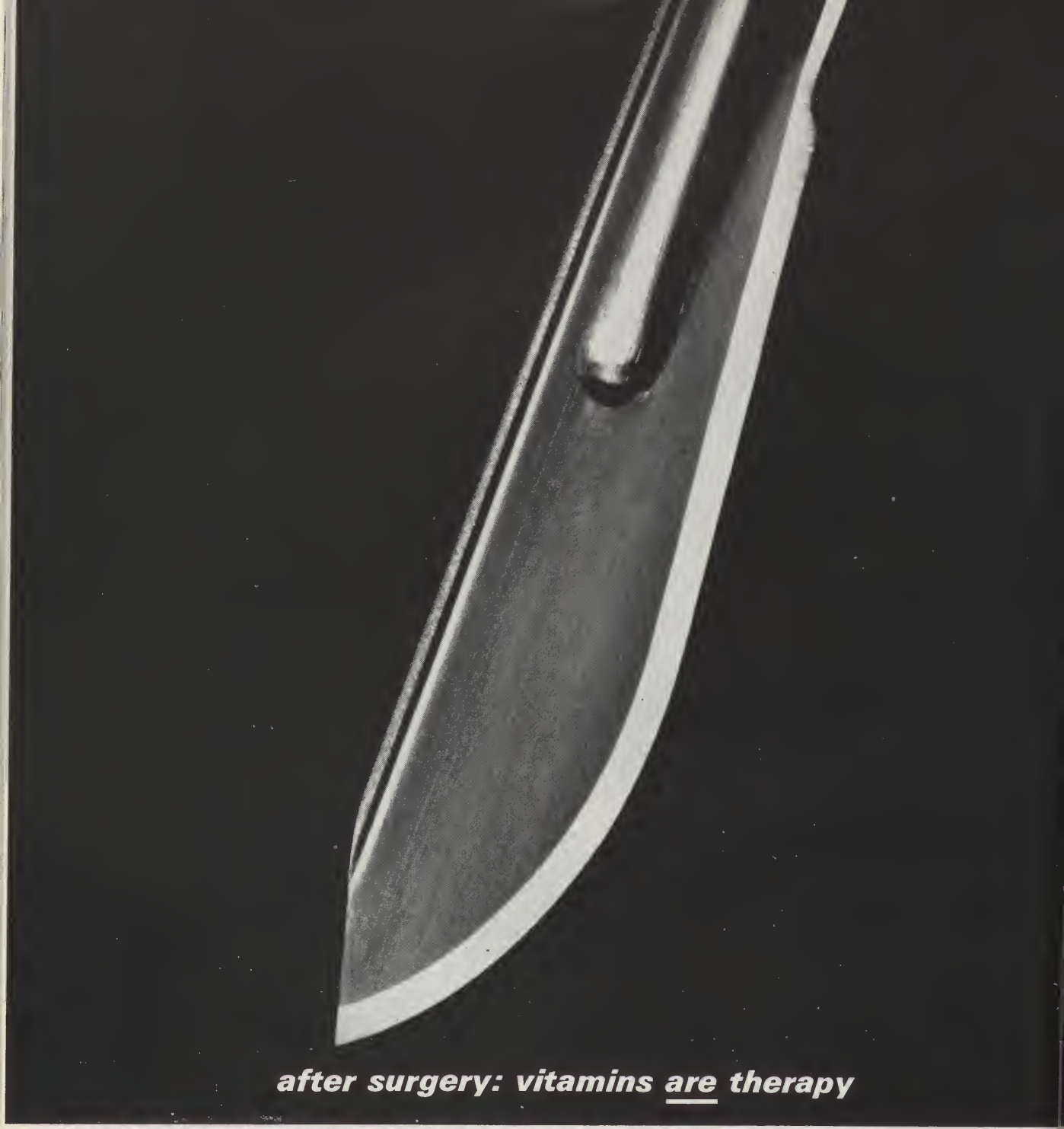
Usual dosage: One or two 400 mg. tablets t.i.d.
Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50. Also as MEPROTABS® — 400 mg. *unmarked,* coated tablets; and in *sustained-release* capsules as MEPROSPAN®-400 and MEPROSPAN®-200 (containing respectively 400 mg. and 200 mg. meprobamate).

WALLACE LABORATORIES / *Cranbury, N. J.*

Clinically proven in over 750 published studies

1. Acts dependably — without causing ataxia or altering sexual function
2. Does not produce Parkinson-like symptoms or liver damage
3. Does not muddle the mind or impair physical activity

M-7972



after surgery: vitamins are therapy

Nutritional supplementation is basic to postoperative care. Therapeutic allowances of B and C vitamins help meet increased metabolic requirements and compensate for stress depletion. STRESSCAPS can set the patient on a more favorable course and contribute to full recovery. Packaged in decorative "reminder" jars of 30 and 100.

Each capsule contains:	
Vitamin B_1 (Thiamine Mononitrate)	10 m
Vitamin B_2 (Riboflavin)	10 m
Niacinamide	100 m
Vitamin C (Ascorbic Acid)	300 m
Vitamin B_6 (Pyridoxine HCl)	2 m
Vitamin B_{12} Crystalline	4 mcg
Calcium Pantothenate	20 m

Recommended intake: Adults, 1 capsule da
or as directed by physician, for the treatm
of vitamin deficiencies.

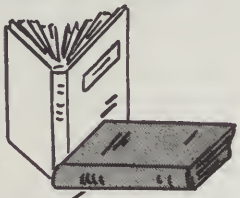
LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

STRESSCAPS®

Stress Formula Vitamins Lederle

SAUNDERS BOOKS

Valuable to the Physician



New — Ready in January!

Schmeisser — **A Clinical Manual of**

Orthopedic Traction Techniques

Every general physician encountering and treating fractures will welcome this handy little manual. Dr. Schmeisser clearly describes and illustrates the way in which traction should be applied in the management of most common fractures. He explains various principles involved in each orthopedic situation and then shows exactly how weights and pulleys should be distributed to achieve optimal results. Contents embrace such topics as: *Pelvis sling for fractures of the pelvis*—Head halter for relief of neck pain or temporary immobilization of cervical fracture or dislocation—*Bryant's traction for a fractured femur in a child 1-3 years old*—Insertion of Kirschner wires and Steinmann pins —*Skeletal traction through proximal femur for central fracture dislocation of the hip*—Cervical traction by skull tongs.

By GERHARD SCHMEISSER, JR., M.D., Chief of Orthopedic Surgery, Baltimore City Hospitals, Assistant Professor of Orthopedic Surgery, Johns Hopkins University School of Medicine. About 60 pages, 7¼" x 10¼", 50 illustrations. About $5.00.
New—Ready in January!

New (9th) Edition!

Wechsler — **Clinical Neurology**

Ready in January! Specific, usable information on virtually every clinical neurologic problem and its diagnosis and management. This *New (9th) Edition,* continuing a 35-year tradition of clarity and completeness, incorporates all the newest advances in understanding of the mechanisms and symptoms of neurologic disease. Dr. Wechsler tells you what questions to ask in the neurologic examination and how to elicit the most meaningful responses. He tells you what signs to look for and how. He investigates the implications of each symptom and shows you how to follow it up. Coverage ranges from *handling facial tics* to *managing complex tumors of the brain.* Chapters on *Neurosyphilis* and the *Psychologic Diagnosis* have been completely rewritten for this edition. Recent contributions of the biochemist and pharmacologist are interwoven throughout the text according to their clinical pertinence. *A valuable clinical guide for every physician seeing neurologic disorders.*

By ISRAEL WECHSLER, M.D., Consulting Neurologist, The Mount Sinai Hospital, New York. About 752 pages, 6½" x 9¾", with 179 figures. About $12.50.
New (9th) Edition—Ready in January!

New — Ready in January!

Warren — **Surgery**

An Integrated and Cohesive Presentation of the Principles of Surgery

This monumental new volume was produced by 24 members of the Harvard Surgical Faculty, under the skilled leadership of Dr. Richard Warren.

Emphasizing today's principles of surgical disease rather than mere mechanical techniques, it encompasses the entire spectrum of surgery. It offers an amazing unity of theme and development rarely achieved in a multi-author volume. Every effort has been made to give a clear understanding of the nature of the surgical problem and the rationale of its clinical management. You will welcome the sustained emphasis on the natural history of surgical disease and the mechanisms that produce symptoms. Indications are shown for exactly *when, how* and *why* surgical intervention may be called for in the course of a disorder.

The first portion of the text concentrates on the fundamentals of surgery not limited to specific areas of the body *(wound healing, hemorrhage, trauma, infection, tumors, burns, anesthesia).* The remaining 24 chapters, the major part of the book, deal with various disease entities amenable to surgical treatment. Every area of the body is covered—from *the brain and the spinal cord* to *the arteries, veins and lymphatics.*

An outstanding coordinative feature of this work is the liberal use of crystal-clear illustrations all drawn by a single artist, *Janis Cirulis.* This is a volume that every practitioner will want on his shelf as an excellent reference on the principles of modern surgery.

By RICHARD WARREN, M.D., in Collaboration with 23 Other Members of the Department of Surgery, Harvard Medical School. About 1377 pages, 7" x 10", with about 511 illustrations. About $19.00. *New—Ready in January!*

To Order Mail Coupon Below!

W. B. SAUNDERS COMPANY
West Washington Square Philadelphia 5

Please send when ready and bill me:

☐ Warren's Surgery, about $19.00.

☐ Schmeisser's Orthopedic Traction Techniques. about $5.00.

☐ Wechsler's Clinical Neurology, about $12.50.

Name.....

Address.....

.....SJG 12-62

Why Sardo® is the **BATH OIL OF CHOICE** for dry, itchy skin



Why does SARDO so effectively relieve[1-5] dryness and itching in so many patients with eczematoid dermatitis, atopic dermatitis, senile pruritus, contact dermatitis, soap dermatitis, diabetic dry skin, neurodermatitis?

These are the reasons . . .

HIGH QUALITY SARDO is the **original, exclusive,** high quality water-dispersible bath additive oil.*

IMMEDIATE DISPERSIBILITY
SARDO promptly disperses millions of microfine globules uniformly throughout the bath water; no unsightly oil slicks as with certain other bath additives.

SUPERIOR ADSORBABILITY SARDO covers the skin with a fine, unobtrusive long-clinging oil film . . . which lubricates, softens, prevents excessive moisture evaporation and so helps to replenish natural oil and moisture.

ECONOMICAL In addition, the cost per application of SARDO is low – for only **one** capful per bath is required for therapeutic effect.

PLEASANT Unique pine scent, non-sticky, non-sensitizing, SARDO assures patient cooperation.

SARDO consists of oils and various esters of specially selected organic acids having a chain length of C-14 and 16 in combination with non-irritating wetting agents to provide colloidal dispersion of the lipophilic phase. Fragrance consists of natural essential oils, isolates, and aromatics.



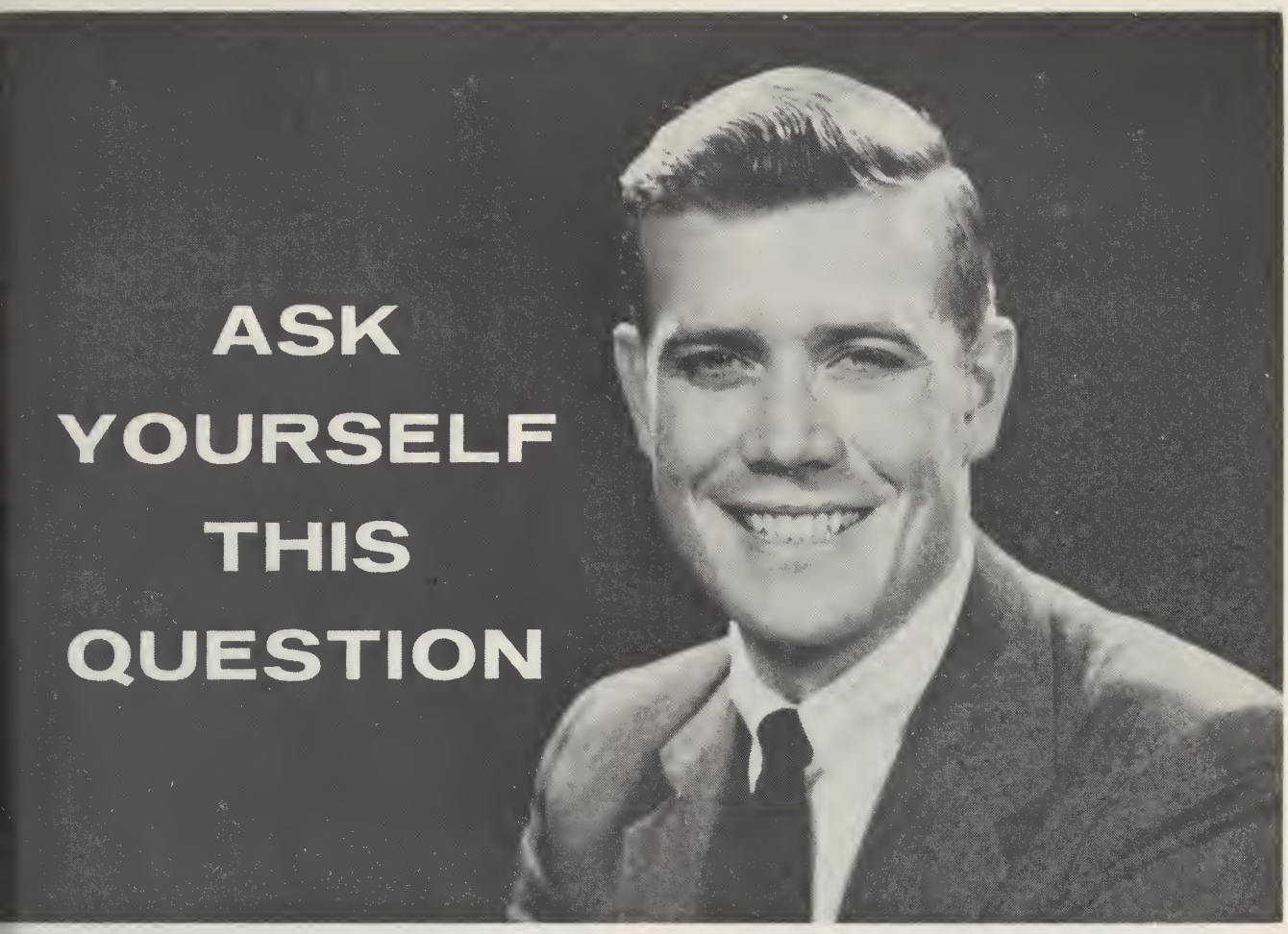
FOR SAMPLES AND LITERATURE

please write . . . **SARDEAU,** INC. 75 East 55th Street, New York 22, N. Y.

Also available: SARDOETTES, disposable compresses impregnated with SARDO, for topical application in relieving skin dryness, itching, scaliness in the same conditions as listed for SARDO.

1. Borota, A., and Grinell, R. N.: J. Amer. Geriatrics Soc., 10:413, 1962. 2. Spoor, H. J.: N. Y. State J. M., 58:3292, 1958. 3. Lubowe, I. I.: Western Med., 1:45, 1960. 4. Weissberg, G.: Clin. Med., 7:1161, 1960. 5. Lieberman, W.: Amer. J. Proctology, 12:374, 1961.

* Pat. Pend. T.M. © 1962 by Sardeau, Inc.



"How can I set a savings goal
-and guarantee I'll get there?"

First Federal of Jackson provides the answer in Guaranteed Dollars – a plan that will bring a smile to your face. The secret is systematic monthly saving, coupled with insurance on your life. Saving builds your cash reserve; life insurance assures your savings goal if death should occur. As savings increase, life insurance decreases, thus giving your plan a constant value at all times. There is nothing to compare. You save, your money earns and you have the protection of life insurance to assure your savings goal. Withdrawals may be made at any time, providing an extra reserve fund for emergencies if necessary.

Guaranteed Dollars Plans available in any amount for 10, 15, 20 years or longer. Call or write today for further details, giving your age, amount you want to save, and length of time desired.

FIRST FEDERAL
SAVINGS AND LOAN ASSOCIATION

CAPITOL AT STATE
JACKSON, MISSISSIPPI

Guaranteed Dollars
SAVINGS PLAN

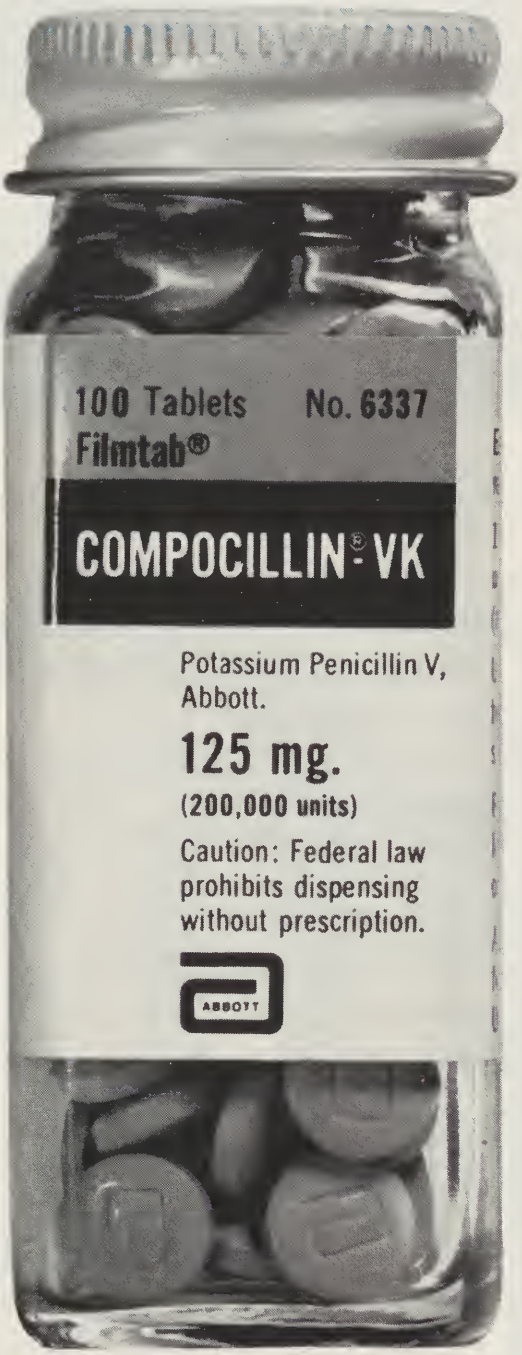
If you're 35 years old
Save $35.78 monthly for $10,000
20-year plan
(Progress of plan as each year passes)

Attained Age	As Savings Increase	Insurance Decreases	Total Value of Plan
36	373.48	12,996.00	13,369.48
37	762.05	12,312.00	13,074.05
38	1,166.32	11,628.00	12,794.32
39	1,586.92	10,944.00	12,530.92
40	2,024.52	10,260.00	12,284.52
41	2,479.79	9,576.00	12,055.79
42	2,953.46	8,892.00	11,845.46
43	3,446.26	8,208.00	11,654.26
44	3,958.97	7,524.00	11,482.97
45	4,492.39	6,840.00	11,332.39
46	5,047.37	6,156.00	11,203.37
47	5,624.76	5,472.00	11,096.76
48	6,225.49	4,788.00	11,013.49
49	6,850.48	4,104.00	10,954.48
50	7,500.72	3,420.00	10,920.72
51	8,177.23	2,736.00	10,913.23
52	8,881.08	2,052.00	10,933.08
53	9,613.35	1,368.00	10,981.35
54	10,375.22	684.00	11,059.22
55	11,167.85	.00	11,167.85

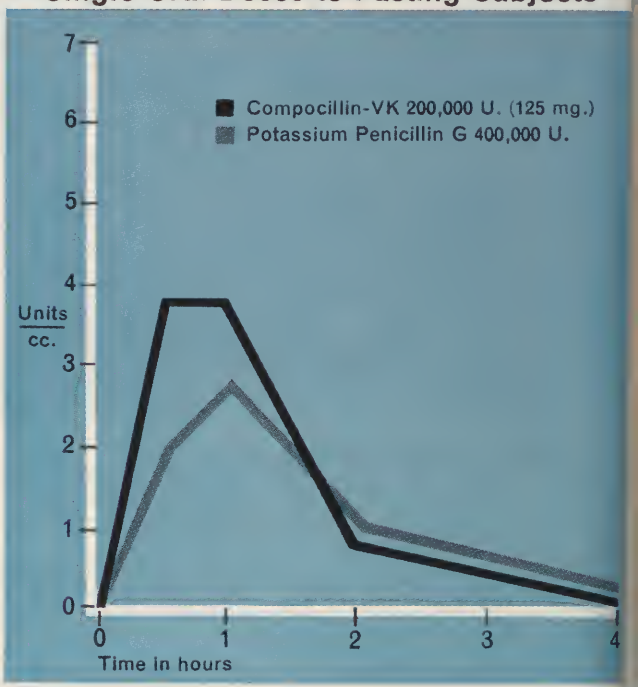
You Save $8,650.95 – You Earn $2,516.90

Here's a penicillin that gives you...

PATIENT ECONOMY WHEN YOU WANT IT



Single Oral Doses to Fasting Subjects*



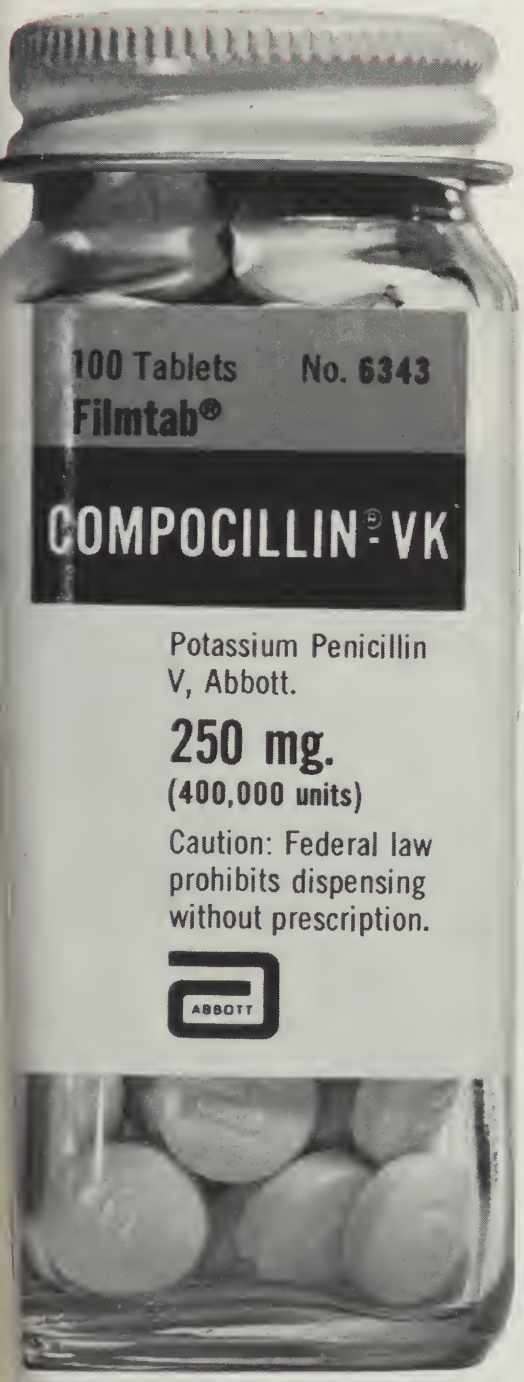
Consider milder bacterial infection

An example might be a respiratory infection Here economy could be a definite factor i your thinking. In the chart above, you'll se that 200,000 units (125 mg.) of Compocillin VI produces blood levels at least equal to thos obtained with 400,000 units of oral penicillin (potassium. This means that in less severe infe tions, Compocillin-VK may be given at *half* th dosage needed with oral penicillin G—with n sacrifice in blood levels. In these cases, the co of Compocillin-VK therapy will be no more- and often will be less—than treatment with or penicillin G.

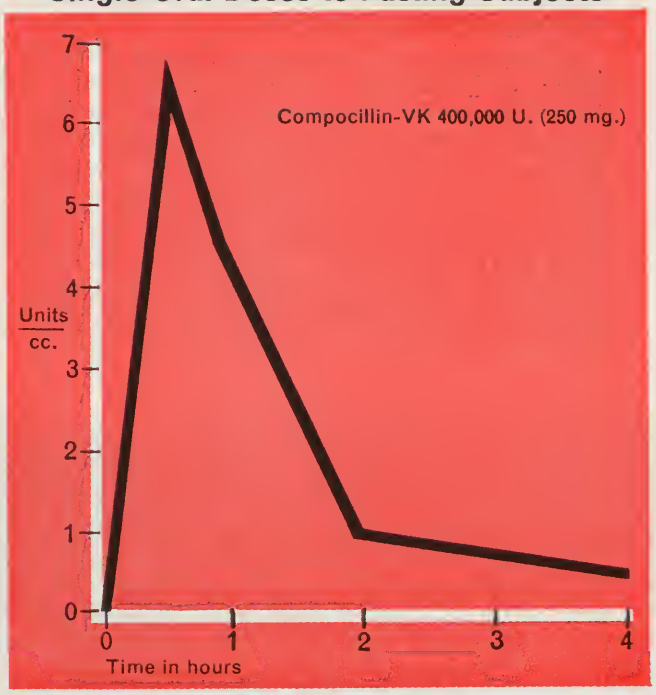
Compocillin-VK—the original potassium penicillin V • In Filmt (125 and 250 mg.) and cherry-flavored Granules for Oral Suspensi

Filmtab—Film-sealed tablets, Abbott; U.S. Pat. No. 2,881,085

PEAK EFFICIENCY WHEN YOU NEED IT



Single Oral Doses to Fasting Subjects*



Then, for severe infections...

. . . where your primary concern is high peak serum concentrations, you can prescribe Compocillin-VK at *full therapeutic dosage* and get the maximum antibacterial activity possible with an oral penicillin. The chart above shows the rapid peak blood levels obtained with 400,000 units (250 mg.) of Compocillin-VK. Actually, these peaks occur faster—and are higher—than those obtained with intramuscular penicillin G. Indeed, Compocillin-VK has been used in cases previously reserved for parenteral treatment. The safety advantage (oral vs. injectable) goes without saying.

*Chart data from two separate studies completed by the Microbiologic and Medical Departments of Abbott Laboratories.

ABBOTT LABORATORIES NORTH CHICAGO, ILLINOIS

210274

Health Service Revises Nursery Recommendations

The United States Public Health Service has revised its recommendations for the planning of newborn nurseries in general hospitals, reducing the number of bassinets to be placed in one room and the number of babies to be cared for by one nurse.

No more than eight to ten babies should be placed in one nursery, since that is the most that can be cared for by one nurse, according to the Public Health Service's new report, published in the Nov. 1 issue of *Hospitals,* Journal of the American Hospital Association.

It is based on a soon-to-be-published USPHS manual, "Planning Nurseries for Newborn in the General Hospital," publication number 930-D5. It was developed as an activity of the Division of Hospital and Medical Facilities of the Public Health Service and the Children's Bureau, with the cooperation of the Committee on Fetus and Newborn of the American Academy of Pediatrics.

USPHS regulations for hospital construction under the Hospital Survey and Construction (Hill-Burton) Act of 1946, have, since the passage of the legislation, allowed a maximum of 12 infants per nurse. Although the regulations have not been changed, hospital planners are urged to follow the recommendations of the new report.

"The extent of spread of infection in a nursery can be reduced as the number of infants in each nursery room is reduced," the report said.

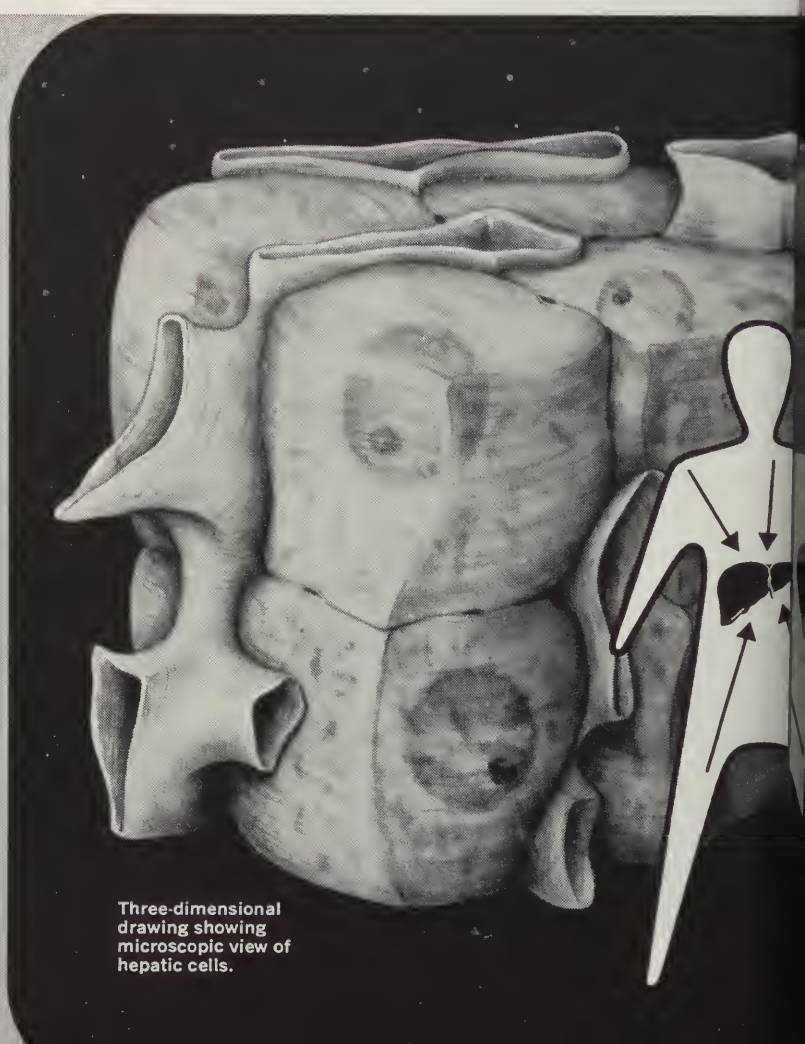
"Because it is one of the areas in the hospital where patients are most vulnerable to infection, the nursery should be planned to provide the best means for the care, safety and welfare of the infants," the report said, adding that the new guide should "be adapted to individual requirements when new nursery departments are planned or when old ones are remodeled."

The report provides formulas for calculating the number of full-term, premature, and observation bassinets a hospital needs according to the population of the area it serves, the number of live births expected annually, and the average length of stay for a full-term or premature infant. The report gives detailed plans for layout and equipment for nurseries in hospitals of various sizes, showing both eight-bassinet and four-bassinet nurseries.

"The four-bassinet nursery lends itself well to the 'cohort' system in which babies born during the same interval (no more than 48 hours) are

when the liver
is threatened or
damaged by fat
in
cirrhosis
alcoholism
hepatitis
obesity
diabetes

METHISCHOL®



Three-dimensional drawing showing microscopic view of hepatic cells.

kept in the same nursery," the report said. The babies arrive and depart together. After the departure of each cohort of babies, the nursery is cleaned and disinfected. In theory, this helps break the chain of possible cross-infection by eliminating the overlapping stay of babies with infection. Two cohorts may be under the care of one nurse.

A minimum of 30 square feet per infant was recommended for each full-term nursery, and bassinets should be at least 2 feet apart. Experience has shown that at least this much space is needed to give proper bedside care to each infant, the report said.

For premature nurseries, the ratio of nurses to babies was set at 1 to 5, since premature infants require more attention than full-term. A premature nursery room should accommodate no more than five infants. Premature infants may be cared for in the full-term nursery if fewer than five will require care at one time and if the total recommended number of 10 is not exceeded, the report said.

An observation nursery should be provided for infants suspected of infection, the report said. When positive diagnosis is made, the infant should be transferred elsewhere in the hospital and placed under isolation. Observation bassinets should be provided at the rate of 10 per cent of the full-term bassinets and should be in a completely separate unit, adjacent to the full-term nursery. A minimum of 40 square feet per bassinet was recommended.

The report also listed provisions for nursing stations, work areas, equipment, air conditioning, temperature and lighting.

West Society Names Dr. Hamernik President

West Mississippi Medical Society named Dr. Fred Hamernik of Vicksburg president at its Oct. 9 meeting.

Other officers are Dr. J. C. Williams of Vicksburg, vice president for Warren County; Dr. Henry Goodman of Rolling Fork, vice president for Sharkey County, and Dr. Tom Mitchell of Vicksburg, secretary-treasurer.

Guest speaker for the meeting was Dr. Oscar Creech, professor and chairman of the Department of Surgery, Tulane University. Dr. Herman Kellum of Vicksburg, 1962 president, presided over the session.

METHISCHOL ... the original, complete lipotropic formula together with a low fat, moderate protein diet, helps to prevent and treat fatty infiltration and fatty degeneration of the liver, and consequent cirrhosis by helping to...

remove infiltrated fat and thus reduce liver size and tendency to fibrosis

contribute to increased phospholipid turnover and regeneration of new liver cells

The suggested daily therapeutic dose of 9 Methischol capsules or 3 tablespoonfuls of Methischol syrup provides:

CHOLINE DIHYDROGEN CITRATE*	2.5 Gm.
dl, METHIONINE	1.0 Gm.
INOSITOL	0.75 Gm.
VITAMIN B_{12}	18 mcg.
LIVER CONCENTRATE AND DESICCATED LIVER**	0.78 Gm.

*Present in syrup as 1.14 Gm. Choline Chloride
**Present in syrup as 1.2 Gm. Liver Concentrate

capsules: 100, 250, 500, 1000; **syrup:** 16 oz. and 1 gallon

Samples of METHISCHOL and literature available from

u. s. vitamin & pharmaceutical corporation

Arlington-Funk Laboratories, division—800 Second Ave., New York 17, N.Y.

For your elderly patients...

an effective GERIATRIC antiarthritic with distinctive Safety Factors

When arthritis afflicts the elderly, it often poses a critical problem in the choice of an effective antiarthritic that will not aggravate other common geriatric conditions . . . such as osteoporosis, hypertension, edema, hyperglycemia, peptic ulcer, renal, cardiac or hepatic damage, latent chronic infection, or emotional instability.

Pabalate-SF, the geriatric antiarthritic, is specially indicated for such patients.

As Ford and Blanchard have reported,[1] Pabalate-SF has "a pronounced antirheumatic effect in the majority of patients with degenerative joint diseases." It produces "a more uniformly sustained [salicylate blood] level for prolonged analgesia and, therefore, is superior to aspirin in the treatment of chronic rheumatic disorders."

Yet Pabalate-SF is marked by distinctive **safety factors:** its potassium salts cannot contribute to sodium retention . . . its enteric coating assures gastric tolerance . . . and its clinical record reflects none of the serious reactions frequently precipitated by therapy with corticosteroids or pyrazolone derivatives. **It has no contraindications except personal idiosyncrasy.**

1. Ford, R. A., and Blanchard, K: Journal-Lancet 78:185, 1958.

Formula: In each persian-rose enteric-coated tablet: potassium salicylate 0.3 Gm., potassium para-aminobenzoate 0.3 Gm., ascorbic acid 50.0 mg.

Also available:
PABALATE, when sodium salts are permissible.
PABALATE-HC, for conservative steroid therapy.

A. H. ROBINS CO., INC. • Richmond, Virginia

Robins

Pabalate®-SF

– the new, convenient way to prescribe **PABALATE-SODIUM FREE**



scratching helps...

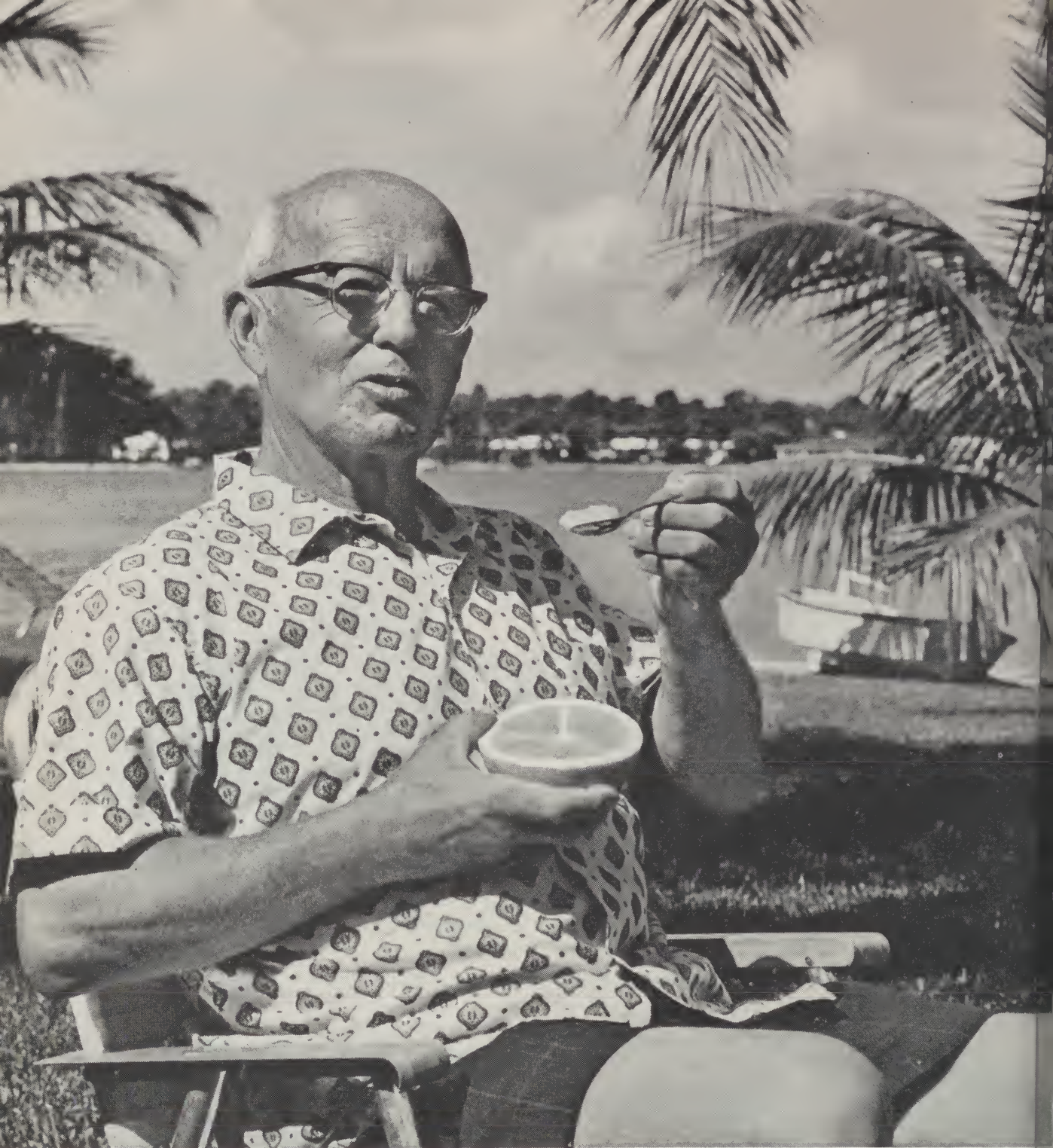


but Calmitol stops itching fast!

For every kind of pruritus—for adults or children—safe, fast-acting CALMITOL Ointment soothes itching on contact, helps prevent secondary trauma caused by scratching. And low-cost, conservative CALMITOL is non-sensitizing. CALMITOL Ointment is available at all pharmacies in 1½ oz. tubes and 1 lb. jars. For more stubborn pruritus, CALMITOL Liquid in bottles of two fluidounces.
THOS. LEEMING & CO., INC., New York 17

CALMITOL®

for anything that itches



The good life–just what the doctor ordered

Sea and sun are both in his doctor's orders — so is that grapefruit he's eating with such gusto. Citrus fruit is a wonderful way for this patient or any patient to get his daily quota of vitamin C . . . to enjoy something good to eat, tasty and satisfying but not rich.

Not all patients are so lucky as to have retired to Florida, where they can just reach out to pick citrus fruit off their own orange and grapefruit trees. But any patient anywhere can get the same benefits of the natural vitamin C in Florida oranges, grapefruit, and tangerines . . . thanks to modern methods of processing fresh fruit. Whether it is frozen, canned, or in cartons, 98% of the vitamin C content of the fruit is preserved.

Grapefruit and other citrus fruits filled with vitamin C are valuable in the nutrition of every age group. Among the teen-agers, vitamin C is one of the two nutrients most often low in the diet. Infants, too, need generous amounts of vitamin C; and they will take it ready when it comes to them in the form of delicious orange juice.

When your patient chooses *Florida* citrus, he can be sure of getting fruit filled with natural goodness and of just the right sweetness. Florida citrus is unexcelled because a State commission watches over the entire Florida citrus crop to see that it meets the world's highest standards for fresh, frozen, canned, or cartoned citrus fruits or juices.

© Florida Citrus Commission, Lakeland, Florida

NEWSLETTER

MISSISSIPPI STATE MEDICAL ASSOCIATION
JACKSON, MISSISSIPPI

December 1962

Dear Doctor:

November elections post mortem is turning up all sorts of diagnoses by the political pathologists. Most are forced to agree that JFK liberals delivered the goods on upsetting tradition of "in" party's losing seats in off-year balloting. Bright spots were scattered and only conservative landslide was in Colorado where federal medical care was major issue.

> State medicine proponents are licking their chops over Senate shift where Democrat majority went from 62 to 68 seats. A second concern is "youth movement" in upper house where 10 new senators whose average age is 43 will replace those averaging 61. Medicine will have to gird for stiffer fight against federal care legislation than ever before faced.

Newest document on the nutritional scene is elaborate report on breakfast habits of Americans, a 19-year investigation. Profusely illustrated, the book boasts complex tables, charts, graphs, six chapters, and a 50-reference bibliography. Conclusion: you should eat more breakfast. Sponsor of studies: Cereal Institute, trade association for breakfast food makers.

AMA has quietly called off its radio and TV campaign urging public to secure flu shots. Reason isn't that anybody is for flu and against vaccination but because campaign was so successful that vaccine shortages, due to unprecedented demand, have developed in some areas.

Mississippi's most promising candidates for medical careers may be subteeners just in junior high school. So say the sponsors of National Science Fairs who believe that seventh grade marks a peak in science interest among youngsters, mostly attributable to newly discovered awareness of world around them.

Communist cynicism hit a high when University of Havana School of Medicine was closed last month during U.S.-Cuban crisis. Party newspaper Hoy reported that medical students were mobilized in armed forces "to defend country against imperialist aggressors."

Sincerely,

Rowland B. Kennedy
Executive Secretary

To train the doctors of tomorrow, medical education needs your help today

Give to the school of your choice through AMA-ERF

DATELINE - MEDICAL AMERICA

Fourth Quarter Public Assistance Payments Hit High

Jackson - Federal public assistance grants to Mississippi for the fourth quarter of 1962 are over $10.6 million, according to welfare officials. Category payments will have federal matching funds of $7 million for old age assistance; $1.9 million, aid to dependent children; $300,000 for aid to the blind; and $1.3 million, aid to the permanently and totally disabled. State matches all monies, making $13 million plus total.

Overweight? Then You Ain't Upper Crust!

Philadelphia - The rich get richer and poor get fatter, according to two University of Pennsylvania investigators. Reporting on a study of 1,660 obese New Yorkers, 99 per cent white, ages 20 to 59, Drs. Mary Moore and Albert Stunkard say if you're fat, chances are you're also unhappy, emotionally immature, or from the lowest socioeconomic order of society. Of women subjects, 30 per cent were from poorest stratum but only 4 per cent were wealthy and educated. Researchers said that for every 10 pounds excess, there's 8 per cent increase in mortality rate. New status symbol must be that lean and hungry look.

Shrine May Build Children's Hospital At Jackson

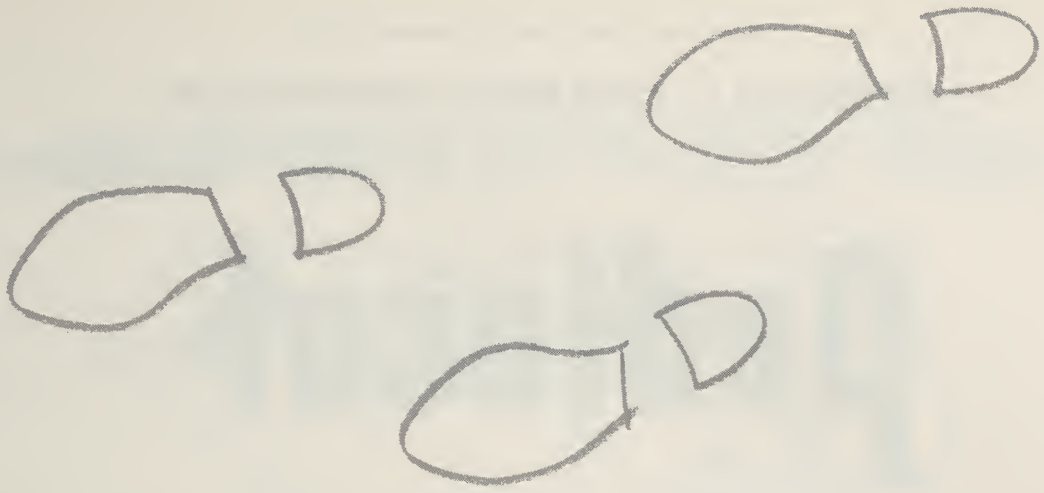
Jackson - A $3 million pediatric hospital limited to caring for burn cases may be built as an adjunct to the University of Mississippi medical complex by the Imperial Council of the Mystic Shriners of North America. Program calls for expanding present 17-hospital system of Shrine with addition of three units for care of burns. Proposed hospital would have 50 beds and be affiliated with medical school but fully supported by Shrine's $190 million endowment.

'Patient' Bites 'Guardian' But Doctor Isn't Liable

Boston - If a patient, while receiving medical care, bites a relative, the doctor probably isn't liable. At least that's the interpretation in Countryman v. Lester 183 N.E. 2d 727 (Mass., June 26, 1962) where the patient was a Siamese cat and the practitioner was a veterinarian. While vet was irrigating the cat's ear, the owner lost control of the pet, got nipped, and sued. The court, with due judicial dignity, ruled that vet gave no warranty that the patient wouldn't bite.

Subscription Prices For AMA Publications Are Increased

Chicago - For the first time in a quarter of a century, subscription fees for the Journal AMA and the 10 specialty publications will be increased but the hike will not apply to dues-paying members. JAMA goes to $18 per year and the specialty journals, to $12, effective January 1, 1963. Members exempt from AMA dues will be eligible for a 50 per cent discount on all subscriptions.



HERE'S YOUR THREE-STEP PLAN FOR MASTER HEALTH PROTECTION FROM

BLUE CROSS
BLUE SHIELD

Step number one is what we call High Basic Blue Cross-Blue Shield protection. These basic benefits get right at the heart of the usual or routine hospital or doctor bill.

Step number two is Blue Cross-Blue Shield's wonderful Master Health Endorsement for supplementing and upgrading your basic protection. Master Health covers X-ray and laboratory examinations, special accidental injury benefits up to $300, and major medical benefits up to $5,000, in or out of the hospital.

Step number three is our Cancer Endorsement, designed to give you valuable protection against CANCER and ten other catastrophic and long-term illnesses.

If you now have only the basic Blue Cross-Blue Shield protection, you will want to consider adding the Master Health and Cancer Endorsements for the ultimate in health care protection. For complete information about eligibility requirements and rates, call or write today.

Now protecting over 369,000 Mississippians.

MISSISSIPPI

BLUE CROSS
BLUE SHIELD

MISSISSIPPI HOSPITAL & MEDICAL SERVICE/530 E. WOODROW WILSON AVE./JACKSON, MISS./TELEPHONE EM 6-1422

SPECIAL COUGH FORMULA *for Children*

Pediacof®

SOOTHING DECONGESTANT AND EXPECTORANT

Each teaspoon (5 ml.) contains:

Codeine phosphate	5.0 mg.
Neo-Synephrine® hydrochloride (brand of phenylephrine hydrochloride)	2.5 mg.
Chlorpheniramine maleate	0.75 mg.
Potassium iodide	75.0 mg.



Bright red, pleasant tasting, raspberry flavored syrup

Dosage:

Children from 6 months to 1 year, 1/4 teaspoon; 1 to 3 years, 1/2 to 1 teaspoon; 3 to 6 years, 1 to 2 teaspoons; 6 to 12 years, 2 teaspoons. Every four to six hours as needed.

How Supplied:
Bottles of 16 fl. oz.

Available on prescription only.

Exempt Narcotic

Winthrop LABORATORIES
New York 18, N Y

...WITH 'METHEDRINE' SHE CAN HAPPILY REFUSE!



Controls food craving, keeps the reducer happy — In obesity, "our drug of choice has been methedrine . . . because it produces the same central effect with about one-half the dose required with plain amphetamine, because the effect is more prolonged, and because undesirable peripheral effects are significantly minimized or entirely absent." Douglas, H. S.: West.J.Surg. 59:238 (May) 1951.

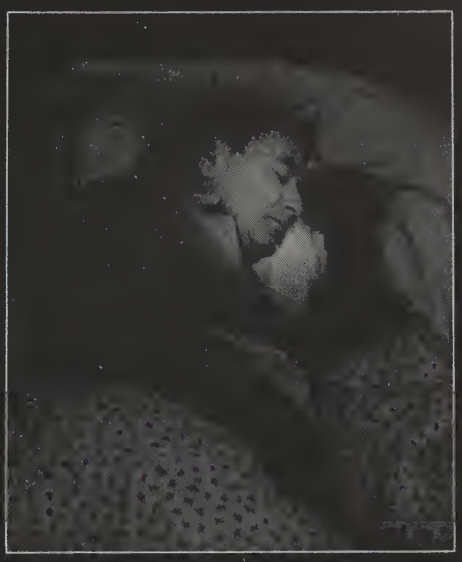
'METHEDRINE'®

brand Methamphetamine Hydrochloride

Supplied: Tablets 5 mg., scored. Bottles of 100 and 1000.

Literature available on request.

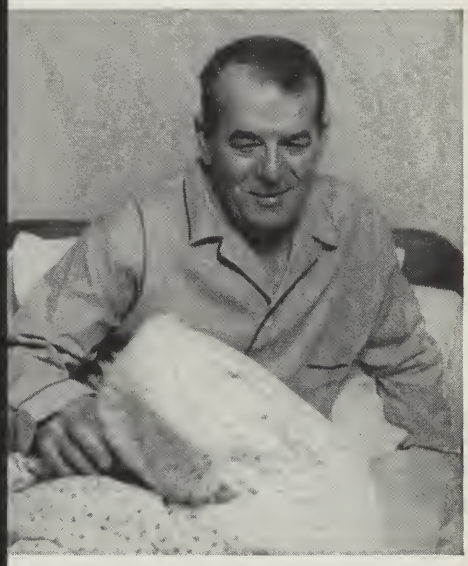
BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York



Thanks to 135 tiny "doses" throughout the

*Trademark, Reg. U.S. Pat.Off. Copyright 1962, The Upjohn Company

night, the arthritic wakes up comfortable



Morning stiffness may be reduced or even eliminated as a result of therapy with the only steroid in long-acting form. And the slow, steady release of steroid makes it possible in some cases to reduce the frequency of administration and/or the total daily steroid dosage.

Medrol* Medules*

Each hard-filled capsule contains Medrol (methylprednisolone) 4 mg. Also available in 2 mg. soft elastic capsules.

Supplied in bottles of 30 and 100.

Upjohn

The Upjohn Company, Kalamazoo, Michigan

Reminder advertisement.
Please see package insert for detailed product information.

Trocinate®

Brand of Thiphenamil HCl.

FOR DIVERTICULITIS, MUCUS COLITIS,

IRRITATIVE DIARRHEA, IRRITATIVE URETERITIS,

BLADDER SPASM

*T*rocinate is a musculotropic antispasmodic with no appreciable anticholinergic action. It relieves spasms of the lower bowel and genito-urinary tract by direct action on the contractile mechanism of smooth muscles. The absence of any appreciable action on the autonomic nervous system eliminates the usual side-effects. It may be safely used in glaucoma. Each tablet contains 100 mgs. Trocinate HCl.

USUAL DOSAGE: 2 tablets, 4 times a day. Maintenance dosage is frequently lower.

Dispensed in bottles of 40 and 250 tablets.

WM. P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA

Manufacturers of ethical pharmaceuticals since 1856

Schering



when "flu" strikes

relieve U.R.I. distress rapidly

- *relieve sneezing, runny nose*
- *ease aches and pains*
- *lift depressed feelings*
- *reduce fever, chills*

For complete details, consult latest Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Bloomfield, N. J.

Rx CORIFORTE®

(Brand of Analgesic-Antihistaminic-Antipyretic Compound)

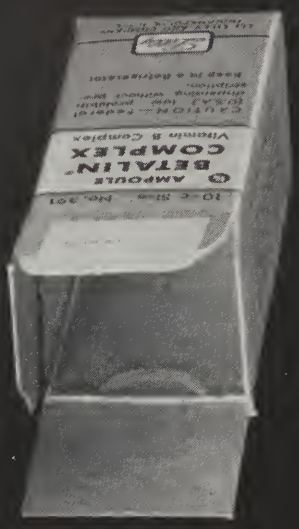
capsules

Each CORIFORTE Capsule contains:

CHLOR-TRIMETON® (brand of chlarpheniramine maleate)	4 mg.
salicylamide	0.19 Gm.
phenacetin	0.13 Gm.
caffeine	30 mg.
methamphetamine hydrachloride	1.25 mg.
ascarbic acid	50 mg.

available on prescription only

4-620



the case of the missing ampoule

People aren't perfect—neither are machines. Both can slip up occasionally. Take an ampoule in a paper carton for example. How can we be absolutely sure that the ampoule is really inside? ■ Here's how: A machine folds the carton, inserts the ampoule, seals the carton, and then places it on the finishing line. Further down the line, the detective waits—a jet of air sweeping across the finishing line just strong enough to blow an empty carton off the belt. Properly filled cartons proceed for further inspection and packaging. ■ Perhaps a small point, but it is another in a long series of control measures designed to deliver quality pharmaceuticals every time.

Eli Lilly and Company • Indianapolis 6, Indiana, U.S.A.

Lilly

290326

JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION
December, 1962, Vol. III, No. 12

ORIGINAL PAPERS

Use of Steroids in Rheumatoid Arthritis

GLENN M. CLARK, M.D.
Memphis, Tennessee

Although 14 years have elapsed since the discovery that steroid therapy suppresses inflammation in rheumatoid arthritis, the use of steroids is still under debate. The author suggests that the most pertinent question is not what steroid to employ, but whether steroid therapy should be used at all. A second important decision is how to limit the toxicity risk, he writes. He discusses check lists for both problems and concludes with an examination of steroid side effects and their management.

In the 14 years since the first announcement that steroid therapy suppressed inflammation in rheumatoid arthritis, enthusiasm regarding its efficacy has ebbed and flowed with relentless monotony. It would seem that it is now time for reflection concerning the role, if any, of steroids in the comprehensive management of the patient with rheumatoid arthritis. In order to do this wisely the following factors must be considered:

1. The nature of rheumatoid arthritis and the prognosis of the disease without treatment.
2. The probable influence of steroid therapy on the course and prognosis of the disease.
3. The risk to the patient of toxicity if such treatment is instituted.

One of the reasons for difficulty in the evaluation of any type of therapy in rheumatoid arthritis is that the disease itself is capricious and unpredictable. Some patients may have extensive joint inflammation lasting only a few weeks or months and then go into remission with little or no disability remaining. Other patients may develop a rapidly progressive malignant form of the disease with marked systemic involvement, nodule formation, cachexia, prostration, and rapidly progressive joint destruction and deformity. The majority of patients, however, follow a relentless, progressive course with partial remissions followed by exacerbations with gradually increasing signs of inflammation and a more subtle progression of the necrosis of joints—all leading to partial or total disability after years of misery.

The extent to which the initiation of steroid therapy may influence the course of the disease has been a matter of vigorous debate. There seems to be general agreement that steroid therapy is an effective means of controlling the signs of inflammation in rheumatoid arthritis. At one time it was considered to be a reasonable assumption that "suppression of the fires of inflammation" would "decrease the accumulation of the ashes of joint destruction and deformity." However most authorities now express considerable doubt that the suppression of inflammation in rheumatoid arthritis has any measurable effect on the degree of joint destruction and deformity. There does not, therefore, seem to be justification in the use of

From the Department of Medicine, University of Tennessee College of Medicine.
Read before the First Arthritis Seminar, University of Mississippi School of Medicine, Feb. 22, 1962.

steroids for any anticipated change in the patient's ultimate joint status. However, our years of experience have taught us that steroid therapy is a peerless weapon in maintaining the functional capacity of patients. Although a patient may have the x-ray appearance of disastrous joint destruction, careful treatment with steroids with use of the modern adjuncts will usually keep him ambulatory and functioning.

Despite the blizzard of criticism regarding toxic reactions, the steroid era has changed the lot of the rheumatoid from that of a dependent existence in a nursing home to that of an independent or semi-independent life in his own home. The only long-term benefit of steroid therapy is, in our opinion, this improvement in functional capacity.

UNDESIRABLE EFFECTS

Now let us examine the risks to the patient in this type of management. Undesirable effects are frequent and almost inevitable. A partial summary includes:

1. Cosmetic difficulties including a moon face, buffalo hump, hirsutism, purpuric skin lesions, and acne.

2. Gastrointestinal reactions varying from dyspepsia to peptic ulceration of the stomach or duodenum with the attending complication of perforation.

3. Metabolic difficulties such as steroid diabetes, excessive weight gain, protein depletion, osteoporosis with compression fractures of the spine and disturbances of the reproductive system.

4. Psychiatric disturbances ranging from depression and nervousness to frank psychotic reactions.

5. The loss of immune defense against the development of infection and the spread of exacerbation of previously existing infections.

6. Disturbance in sodium and potassium excretion sometimes leading to edema or congestive heart failure.

7. A vague but very real syndrome of hypercortisonism manifested by fatigue, depression, nervousness, exacerbation of joint disease, and the presence of vasculitis and neuropathy.

It seems to us in the light of present evidence that if the only long-term benefit to the patient is an increase in functional capacity, the only justification for subjecting a patient to this imposing risk of toxicity is the demonstration that the patient cannot otherwise maintain this functional capacity. Only then should one pick a steroid and initiate the long process of attempting to suppress inflammation to a degree acceptable to the patient with efforts to minimize the risk of toxicity and to treat wisely those reactions which occur.

The drug houses have spent millions of dollars and years of research in attempting to decrease the incidence of toxicity and to improve the therapeutic ratio of steroid preparations. In 1953 it was reported by Bunim and coworkers[1] that the production of a double bond at the 1-2 position in either cortisone or hydrocortisone would increase the potency and minimize the electrolyte effect of the new compounds. This improvement has to all intents and purposes solved one problem related to steroid treatment—fluid retention. Subsequently a great number of modifications in the steroid structure have been hopefully advocated as means of obtaining more potent suppression of inflammation with a decrease in undesirable effect. In spite of our hopes, the rush to introduce new steroids has become a "horse-power race" with little objective evidence that a reduction in toxic reactions has been accomplished at a given level of suppression of inflammation. Although it is true that triamcinolone will suppress appetite and depress the diastolic pressure in contrast to the effect of other steroids, in our experience prednisolone if properly used is just as satisfactory and less expensive than the multitude of recently introduced "new and better" steroids.

THE IMPORTANT QUESTIONS

Although much interest is devoted to the problem of a choice of steroid, it seems that much more important questions in choosing therapy for a given patient might be:

(1) Should steroid therapy be used at all?

(2) How can we limit the risk of toxicity?

A check list for answering the first question might contain the following rules:

1. Before institution of steroid therapy a patient must have definite rheumatoid arthritis.

2. The patient should have a long enough period of observation to estimate which of the three types of course he is likely to follow.

3. It should be established, preferably by a valid trial of more conservative management, that the patient cannot preserve his functional capacity by other means.

It might seem superfluous to suggest that the patient should have definite rheumatoid arthritis before institution of therapy. However it cannot be emphasized enough that although intoxication of a patient may be justified in treatment of a disease

as formidable as rheumatoid arthritis, intoxication in the absence of serious disease is inexcusable. The definite diagnosis of rheumatoid arthritis is established by the presence of objective, progressive joint disease, usually accompanied by morning stiffness. Laboratory and x-ray data supporting this diagnosis make for greater security. (The joint findings should be present for a period of at least six weeks before a definite diagnosis of rheumatoid arthritis can be established.) Finally we should remind ourselves that cervical osteoarthritis with shoulder-hand disease as well as rheumatoid arthritis can cause hot, red, swollen painful hands with pain on extension of the finger joints, and infectious arthritis can also mimic rheumatoid arthritis quite closely. It may not be wise to treat such patients with steroids. It is our custom to sit down and make a check list of positive findings and to be sure that the patient meets the criteria for definite rheumatoid arthritis by the ARA criteria before instituting steroid therapy in any patient.

ADEQUATE OBSERVATION

The second rule requiring observation for a long enough period of time to estimate the type of course which the patient may follow is equally as important. I know of no way in which an accurate forecast of prognosis can be made. However, warning signs such as evidence of severe systemic signs, development of nodules, or rapid development of joint deformity may point to an unfavorable course. If a patient is going to pursue a short term course with minimal disability and then be free of symptoms, it is obvious that little risk of intoxicating the patient is justified. On the other hand if the patient appears to be entering the rapidly progressive downhill and fatal course of malignant rheumatoid arthritis, steroid therapy may be lifesaving and should be initiated in any dosage necessary to reverse this course. The third consideration is that a valid trial of conservative management may be combined with a period of observation necessary to make a diagnosis of definite rheumatoid arthritis. During this initial period physiotherapy and a salicylate intake of at least 40 grains a day may be most rewarding in producing satisfactory relief for the patient and maintenance of functional capacity. Other possible forms of treatment which should be considered early in the disease and which are probably less toxic than steroid therapy are the use of antimalarials, gold, or in some cases a period of bed rest with intensive physiotherapy. Finally a point must be picked at which the patient is obviously losing ground in spite of treatment. This is the time to start steroids.

LIMITATION OF RISK

The problem of limitation of risk of toxicity will try the skills of the best of physicians as well as the courage of the patient. It is axiomatic that the most important consideration, regardless of the choice of steroid, is to keep the patient on the smallest dose which will adequately maintain his functional capacity. The institution of a dosage level of steroids which will suppress all of the patient's symptoms is inevitably followed by prohibitive toxicity. For this reason it has been necessary for us to establish dosage limits which we now consider inflexible in our treatment of chronic rheumatoid arthritis. These limits can be briefly summarized by stating that they constitute two tablets per day of the standard types of steroid preparation. This makes the daily limit for cortisone 50 mg. a day, hydrocortisone 40 mg. a day, prednisone and prednisolone 10 mg. a day, methylprednisolone and triamcinolone 8 mg. a day, dexamethasone 1 mg. per day, and the variety of newer steroids in similar ranges. Even within these dosage limits, which are less than those originally advocated for daily maintenance, some patients, especially women, will develop prohibitive toxicity. It is our custom to make frequent attempts to lower even this dosage.

LEVEL OF THERAPY

Initiating steroid therapy at a full suppressive level is almost always followed by difficulty in tapering the patient. Once the patient has seen the promised land of freedom from pain, he is unwilling to compromise at the less satisfactory state which he must endure to remain on a relatively safe maintenance dose. It is our custom, therefore, to start the patients on approximately half of the optimum maintenance dose. If he accepts this and maintains his functional capacity, it is never raised. Even those patients who do not obtain sufficient benefit from the smaller dose are more likely to accept a reasonable maintenance dose which represents an increase from his previous amount.

It is much easier to advocate the use of a smaller dose of steroids than to possess the ingenuity sometimes necessary for making it acceptable to the patient. Although frequent visits and constant encouragement of the patient are sometimes of benefit, adjunctive therapy may be

necessary. The most important of these is a dynamic and specific program of physiotherapy. In many patients, painful hands are the result of reflex dystrophy from muscle spasm in the neck. It is of great benefit to have daily applications of hot packs and massage to the neck and shoulders. In some cases ultrasound to the trapezius areas and muscle stretching exercises are of importance. Contrast and paraffin baths to the hands should be thought of as part of the home therapy program. The judicious use of joint injections, especially in cases of severe knee involvement, may help a patient who is otherwise satisfied with his therapeutic regime avoid further intoxication by systemic steroid increases. Full dosage salicylate therapy is often forgotten as a tried and true reliever of joint symptoms and should always be included in efforts to produce satisfactory relief with small doses of steroids.

A final and most important consideration is the fact that a responsible physician cannot merely hand out pills or prescribe treatment and feel that he has done an adequate job of taking care of a patient with rheumatoid arthritis. It takes frequent visits, constant evaluation of sore and painful joints, sympathy, understanding and encouragement to get the patient to accept a relatively safe therapeutic regimen through the months and years in which he must tolerate his disease.

SIDE EFFECTS

We are all aware of the fact that no matter how carefully the dosage of steroids are limited, that undesired effects of treatment may develop. Another important job of the physician is to carefully identify and treat these side effects, usually with continuation of steroid therapy in the patient. Let us examine our list of side effects and discuss some of the factors which must be considered in their management.

1. The cosmetic effects, especially the development of some mooning of the face and purpuric skin lesions, seem to occur sooner or later in all steroid treated patients. These effects cannot be avoided and must be accepted as a price which must be paid to maintain functional capacity.

2. Dyspepsia is an extremely common occurrence and careful attention should be given to the possibility that the patient is developing a peptic ulcer. It is worth a word of warning that occasionally patients without gastrointestinal symptoms may develop disastrous complications of peptic ulcer without the usual heralding signs. The presence of anemia, tarry stools, or persistent upper GI complaints should be evaluated by x-ray and other measures. Fortunately, steroid-induced ulcer disease is usually responsive to a regimen of antacids, antispasmotics, and careful regulation of the diet—all without withdrawal of the steroid therapy. It should be emphasized that patients developing complications of peptic ulcer requiring surgery should receive *increased* dosage of steroid or disastrous adrenal insufficiency may ensue.

3. Especially with the newer steroids, excessive weight gain is a common complaint. As soon as therapy has relieved the patient of anorexia and cachexia, the patient should be warned against weight gain and limit on the food intake should be encouraged. The prevention of protein depletion and osteoporosis are still a matter of controversy and intensive research. For the present it would seem that attention to an adequate calcium intake and the judicious use of one of the many anabolic agents now available may be helpful in this regard.

4. Psychic disturbances are a trying side effect of steroid therapy. Minor depressions are extremely common in rheumatoid arthritis either treated or untreated. Constant encouragement of the patient and the judicious use of such agents as Niamid or Librium may sometimes be helpful. The major psychoses usually occur in patients having a history of previous psychotic behavior, and are among the more disastrous complications of steroid therapy. In our opinion, a history of psychosis is a definite contraindication to steroid therapy for rheumatoid arthritis.

5. The loss of immune defense against the development of infection is a more subtle side effect of steroid therapy. It is imperative that the physician make frequent assessments for the presence of infection, treat any infection identified vigorously, and as is the case of the treatment of ulcer complications, refrain from falling into the trap of decreasing steroid dosage in the presence of overwhelming infection.

6. As was previously stated, troubles with sodium and potassium levels have been largely eliminated by the development of newer products. In those cases developing fluid retention, the use of an appropriate diuretic usually solves the problem.

7. One of the most disturbing problems is the development of the so-called hypercortisonism syndrome. There is usually severe rheumatic disease in addition to steroid intoxication, and most patients require hospitalization for effective treatment. As far as I know, there is no specific therapy,

but bedrest, the use of Librium or other agents to combat the depression, and a very gradual reduction in steroid dosage is usually of some benefit.

SUMMARY

In summary, steroid therapy should be utilized only in patients whose functional capacity is seriously threatened by rheumatoid arthritis. It should only be entertained if both the patient and the physician are willing to enter into a long-term battle to keep the steroid dosage down and the functional capacity up by every means available. Otherwise the patient becomes intoxicated without accomplishing any long-term benefit. If used judiciously and with the precautions advocated, many patients can be kept as useful members of society who otherwise would become dependent, bedridden cripples. ★★★

858 Madison Avenue

REFERENCES

1. Bunim, J. J.; Pechet, M. M.; and Bollet, A. J.: Studies on Metacortandrolone and Metacortandracin in Rheumatoid Arthritis: Antirheumatic Potency, Metabolic Effects, and Hormonal Properties, J. A. M. A. 157:311, 1955.

FULL SPEED AHEAD

The loudspeaker of the big jet clicked on and the captain's voice announced, "Now, there's no cause for alarm, but we feel you passengers should know that for the last three hours we've been flying without the benefit of radio, compass, radar, or navigational beam. This means, in the broad sense of the word, that I'm not quite sure in which direction we are heading. I'm certain you'll be interested to know, however—on the brighter side of the picture—that we are making excellent time."

Thoracic Trauma

WILLIAM G. PACE, M.D.
Columbus, Ohio

Chest injury is a common result of automobile accidents. In this paper the author reviews all cases admitted over a 12-year period to the Ohio State University Hospital for chest injury following auto accidents. He discusses types of injuries and the necessary facilities for adequate management.

THE AUTOMOBILE CONTINUES to take an appalling toll in lethal and disabling injuries. The most rational approach to the problem of chest injuries from automobile accidents is, of course, prevention. The seat belt and other safety devices have proven their value in this field. Driver education is also important, but every study has shown that even the most careful and well-protected driver is not immune to crash situations and injuries. Many of these injuries will occur far from a medical center. At the same time, even quite limited facilities in the most remote and inaccessible village are often lifesaving if utilized early and properly, particularly in the patient with chest injury.

The records of all patients admitted to the Ohio State University Hospital over a 12-year period primarily for chest injury following automobile accidents were reviewed. Only patients sustaining intrathoracic trauma in relation to automobile accidents were included. Those sustaining simple rib fracture without intrathoracic damage were not considered inasmuch as the problem of the fractured rib has been extensively discussed by others. Of over 500 patients admitted for automobile trauma in this period, 108 had suffered chest injury. This incidence of chest injury is in agreement with the findings of the Cornell Automobile Crash Injury Research Program if rib fractures are included.

Pneumothorax was the presenting injury in 30 patients, occurring eighteen times on the right side, eight times on the left, and bilaterally in four patients. The diagnosis was established by physical examination, and treatment in all cases was initiated in the emergency room. The value of physical examination in this injury may be seen by the few recorded radiographic diagnostic procedures done prior to the institution of therapy. The records indicate that most of these patients, and especially those with bilateral pneumothorax, were in extreme respiratory distress. Delay for diagnostic radiography in this type of patient is not only unnecessary, but it may be extremely dangerous.

The average age of this group of patients was 27 years, and the hospitalization was short and complications few. Prior to 1955, the treatment of choice in this injury was needle aspiration or observation. In the last seven years, the policy of closed tube thoracotomy has been followed on all patients with a pneumothorax of over 20 per cent, and as a result, hospitalization has been shortened, complications have been decreased, and repeated aspirations have become unnecessary. Antibiotics are never used unless specifically indicated, and there have been no problems with empyema.

The second most common injury, hemopneumothorax, was seen in 25 patients. In all but one of these patients the diagnosis was established on admission by physical examination and x-ray. The single erroneous diagnosis was one of omission: the serious chest problem was neglected because of associated abdominal injuries. In the over-all groups of patients with hemopneumothorax, the average age was 37, more than a decade older than the patients with pneumothorax alone. The degree of lung collapse from the intrathoracic air tended to be less, and the decreased urgency of

From the Department of Surgery, Ohio State College of Medicine and University Hospital.

Read before the Section on Surgery, 94th Annual Session, Mississippi State Medical Association, Jackson, May 7-10, 1962.

the situation allowed diagnostic radiography to be used more often in this group. Unfortunately, failure to obtain upright chest x-rays obscured the diagnosis initially in many of these patients, and repeat films were often needed to confirm the presence of blood. Without exception, the official x-ray diagnoses on patients with hemopneumothorax have read "hydropneumothorax." The responsible attending physician must be aware that "hydro" refers to blood in these cases, not merely to fluid.

CONTRAST IN TREATMENT

There was a sharp contrast in the methods of treatment of this group of patients. In the early years of the study, needle aspiration was the treatment of choice. Similarly, in recent years, several patients have been added to the series who have had attempted needle aspiration elsewhere and who have finally been referred to this hospital. All of the patients treated with aspiration alone have required repeated aspiration and on at least two occasions, subsequent decortication. Closed tube thoracotomy, on the other hand, has been rewarding in that there have been few complications and no repeat procedures when the tube was inserted relatively soon after the trauma.

Hemothorax as an isolated entity occurred in 16 patients. It presented in an older group, with the average age over 50 years, reflecting perhaps the diminished contractility of the intercostal and pulmonary vessels. The diagnosis was more difficult to establish in this group since the accumulation of blood in the chest was less dramatic than the accumulation of air and the older patient less responsive to stimuli than the young. The diagnosis was completely overlooked initially in six of the 16 patients, and in several patients it was first made on the ward when the patient presented with a picture of shock. The hazard of diagnostic error in this type of case is multiplied by the tendency of the examining physician to use the supine chest x-ray in the injured patient. Even under ideal circumstances with an upright film, as much as 300 cc. or more of blood may remain in the chest undetected. The supine film may not show relatively high amounts of intrathoracic blood or fluid.

Closed tube thoracotomy has again been the therapy of choice in recent years. It not only permits complete evacuation of blood from the chest, but also provides an index to the degree of blood loss and an indication of whether thoracotomy is necessary to control major vascular damage.

Injury to the great vessels has aroused increased attention in recent years with the improvement in vascular techniques and the advent of corporeal bypass procedures. Two patients in this series had major vessel damage which was successfully repaired, but actually no highly specialized techniques or apparatus were used. In one patient with a rupture of the thoracic aorta, the diagnosis was made by an astute surgeon in a small town 50 mile from Columbus, and the patient was transferred to the University Hospital for repair. This patient represents the first reported salvage of an acute aortic laceration.

The patient was admitted to the small hospital following an automobile accident and an initial diagnosis of fracture of the right femur and left tibia was made. Chest films showed a progressive widening of the mediastinum with obscuration of the aortic knob, and the patient was transferred to this hospital. A left lateral thoracotomy was carried out, and the laceration was identified at the ligamentum arteriosum, the usual location for over 80 per cent of reported traumatic aortic lacerations. Closure of the laceration was effected after cross-clamping the aorta. A Teflon patch was used over the area for reinforcement. Recovery was uneventful.

In the other instance of successful major vessel repair, a progressive and continuous hemothorax was again the diagnostic feature. The defect was repaired through open thoracotomy by ligation of a lacerated pulmonary vein. The patient was an 8-year-old boy, and postoperative angiocardiograms have shown no residual defect. No special apparatus was used in either of the major vascular cases, and salvage of the patient was accomplished in each case only by an aggressive and early approach to the problem.

RUPTURE OF THE BRONCHUS

Rupture of the bronchus has been diagnosed and successfully repaired in four of the five cases in this category. In the one failure, there was a bilateral bronchial rupture at the carina, and repair was impossible. Three of the four cases of successful repair sustained injuries to the right main stem bronchus. The average age of the patients was 25. In all of the patients salvaged, the diagnosis was made by failure of the lung to expand with closed thoracotomy with massive suction. Primary suture of the involved bronchus with interrupted sutures has been uniformly successful, and no pulmonary tissue has been sacrificed in these patients.

Five patients were treated for crushed chest, three with towel clip fixation of the chest wall in

the emergency room and the other two by open thoracotomy and internal fixation after initial temporary stablization with tape and sandbags. The average age of these patients was 58 years, indicating perhaps the brittle ribs of the older age group with an increased tendency for flail chest. Tracheotomy has been used in these patients to increase ventilation and decrease the dead space. All of these patients made relatively uneventful recoveries, with an average hospitalization of 2.5 weeks.

RUPTURED DIAPHRAGM

Ruptured diaphragm has been repaired in two patients, but the repair of this lesion has not constituted an emergency. One of these patients was 25 years old, and the other was 60. Repair in each of these patients followed stablization of vital signs, tracheotomy, and then the appearance of pulmonary compromise by the incarcerated intrathoracic stomach and colon. When the trauma is severe enough to rupture the diaphragm, multiple other injuries are usually sustained simultaneously, and the patient with ruptured diaphragm must be managed with the utmost caution.

Pulmonary injuries which do not require surgical intervention are rarely discussed, but they must be recognized. Pulmonary contusion and pulmonary hematoma have been observed without significant rib cage damage in six patients. The age range of this group is from 16 years to 60, and the radiographic picture of intra-alveolar hemorrhage and hematoma must be distinguished from that of bronchopneumonia, intrapulmonary tumor, or aspiration pneumonia. The patients in this group have been treated with bed rest, antibiotics if indicated, and continued close observation. No serious complications have been observed.

MYOCARDIAL CONTUSION

Myocardial contusion has been reported, and can be a serious entity if unrecognized. Two patients in the present series sustained cardiac damage from the closed chest trauma. One of these was a 65-year-old female and the other a 48-year-old male. The latter developed a pericardial friction rub and a bloody pericardial effusion which required pericardiocentesis. Failure to recognize the situation might well have resulted in a tamponade.

A careful re-evaluation of the patients who expired was done to determine any possible source of preventable error. All but two of the patients who expired sustained multiple severe chest injuries with complicating neurologic or abdominal injuries. One of the two exceptions was a 30-year-old physician who was wearing a seat belt at the time of the accident. A diagnosis of aortic rupture was made preoperatively, but the patient died during repair. The other patient sustained bilateral bronchial rupture and died in the emergency room.

DISCUSSION

The most outstanding feature in this survey was the fact that almost 80 per cent of the patients in this series sustained injuries which were potentially fatal, but which were easily managed with no mortality by minor surgical procedures. Less than 10 per cent of the patients sustained major intrathoracic injuries requiring immediate thoracotomy. All of them survived, but facilities for thoracotomy must be available for these patients or the problem must be recognized and the patient must be transferred to an adequately equipped area. Fifteen per cent of the patients expired as a result of multiple severe injuries. All of this group sustained serious intrathoracic injuries, almost all sustained brain damage or other neurological problems, and the remainder had extensive soft tissue, intra-abdominal, or bone damage. ★★★

17 N. Harding Road

REFERENCES

1. Braunstein, P. W.; Moore, T. O.; and Wade, P. A.: Preliminary Findings of the Effect of Automobile Safety Design in Injury Pattern, Surg., Gynec. & Obst. 105:257, 1957.
2. Cosgriff, J. H., Jr.; and Hale, H. W., Jr.: Is "Simple" Rib Fracture a Simple Injury? Am. J. Surg. 95:569, 1958.
3. Keenan, Richard L.: Crushed Chest Injury Treated with a Mechanical Ventilator, M. Ann. District of Columbia 30:682, 1961.
4. Kemmerer, W. T.; Eckert, W. G.; Gathright, John B.; Reemtsma, K.; and Creech, O., Jr.: Patterns of Thoracic Injuries in Fatal Traffic Accidents, J. Trauma 1:595, 1961.
5. Kissane, R. W.: Traumatic Heart Disease; Nonpenetrating Injuries, Circulation 6:421, 1952.
6. Nause, Frederick P.: Treatment of Crushed Chest Using a Mechanical Respirator, Wisconsin M. J. 59:697, 1960.
7. Passaro, E. P., Jr.; and Pace, W. G.: Traumatic Rupture of the Thoracic Aorta, Surgery 46:787, 1959.
8. Rapport, R. L.; Allen, R. B.; and Curry, G. J.: The Fractured Rib—A Significant Injury, A.M.A. Arch. Surg. 71:7, 1955.
9. Report of the National Safety Council, 1958.
10. Windsor, Harry M.; and Dwyer, Brian: The Crushed Chest, Thorax 16:3, 1961.
11. United States Public Health Service, National Health Survey 1957-1958.

Virus Diseases—Crippling Effects and Recent Research

DANIEL BERGSMA, M.D.
New York, New York

The author, who is associate director of medical care of the National Foundation, discusses recent developments in virus research. He comments on pertinent factors and their interaction and the importance of viral mutants and virus latency. He concludes with a discussion of the role of human DNA in determining crippling effects.

LURIA[1] DEFINED VIRUSES by introducing four basic restrictions: (1) Viruses are entities. (2) Viruses are submicroscopic in size. (3) Viruses reproduce only inside specific living cells. (4) Viruses can be introduced into host cells from without.

As indicated all four items are to be taken together. Size alone, for example, is not determinate, because pleuropneumonia-like bacteria meet the size requirement. Furthermore, certain bacteria multiply only within cells but are large and are eliminated by the size requirement.

Hirst[2] has pointed out that the term "living" cell may be regarded as describing a state of metabolic activity or of ability to mobilize energy rather than capacity to divide because the latter is often lost immediately after the virus enters the cell. The discovery that naked RNA without accompanying protein may be used to infect plants indicates that we have reached some kind of borderline of differentiation.

VARIABLE AND HOST FACTORS

Crippling effects in humans from viral infections vary with the host, with the virus, with the prior stimulation of the host's immunological mechanism, and with the treatment.

The range of effect on the basis of host variability may extend from clinically inapparent carrier to early death or lifelong disability. Such host variability, unassociated with antibody immunity, may be affected by age, sex, genetic background, state of nutrition and hormonal balance. One may cite the high degree of susceptibility of newborn mice to fatal infection with the Coxsackie viruses and the great resistance of adult mice as one example of an effect associated with increasing age. The influence of hormonal imbalance on natural resistance is illustrated by the effect of pretreatment with cortisone which renders adult mice susceptible to Coxsackie viruses (Smadel[3]).

VIRUS AND IMMUNE FACTORS

The range of effect on the basis of different viral infections and on virus strain variability or relative virulence may vary from incidental stimulation of the host's immunological system to the severest clinical residual expression of the disease.

The crippling effects from viral infections also vary, with both prior viral infections, especially quite recent viral infections, and with the prior immunization efforts using killed or attenuated virus vaccines which completely protect some persons and probably reduce the severity of complications in others.

The interference phenomenon is a reaction unrelated to classic immunologic responses, although

Associate Director of Medical Care, The National Foundation.
Read before the Section on Preventive Medicine, 94th Annual Session, Mississippi State Medical Association, Jackson, May 7-10, 1962.

it impinges on and interdigitates with immunologic reactions. Smadel[3] reports, "Cells treated with noninfectious influenza virus promptly lose susceptibility to active homologous virus. The interference phenomenon also extends to the intact animal. Thus, monkeys inoculated peripherally with nonlethal amounts of a neurotropic strain of yellow fever virus will, within a few hours, resist a fatal dose of viscerotropic yellow fever virus. Interference is not limited to homologous or even closely related viruses. For example, monkeys infected with the virus of lymphocytic choriomeningitis are for a short time less susceptible than normal animals to the destructive effects of poliovirus, and, similarly, mice injected intracerebrally with influenza virus resist lethal amounts of the virus of western equinine encephalomyelitis. The mechanism of interference is poorly understood. Although there has been hope that the phenomenon might be applicable to measures for the prevention of human disease, this has not yet been realized." However, the impact of the proper use of killed and attenuated viral vaccines on the crippling effects from viral diseases are well known and very great.

THERAPEUTIC FACTORS

Specific chemotherapy is yet to be fully developed. However, comprehensive and exemplary patient care including management of paralysis, prevention of contractures, muscle attachment transplants, bracing and splinting, substitution of mechanical power for muscle loss, suitable physical and occupational therapy, prevention or treatment of complications such as renal calculi resulting from loss of muscle mass, and other modern techniques of rehabilitation add up to new hope and a considerable return toward normal living as well as a marked reduction in residual damage for most persons who experience certain crippling effects from viral infections.

INTERACTION OF FACTORS

It is evident that these observed variations in crippling effects may be described separately as differences in natural resistance of the host, relative virulence of the infecting virus strain, prior preparation for virus attack through suitable immunological procedures, and prompt use of exemplary care. However, it is equally evident that in each person clinically crippled by a viral infection the interaction of two or more of these factors actually determined the result.

VIRAL MUTANTS

From the point of view of preventive medicine the variability of virus virulence deserves further comment. As Smadel[3] so clearly indicated, "The fact that viruses undergo mutations either in nature or in the laboratory is of practical, as well as theoretical, importance. Thus, the 17D strain of yellow fever virus, which provides one of the most useful live attenuated vaccines available to preventive medicine, is quite different in many respects from its parent strain. The modern methods for obtaining clones of viruses, particularly the plaque and terminal dilution technics, have made it possible to proceed rather rapidly and with considerable assurance in the search for highly attenuated, reasonably stable mutants of the polioviruses for use in a live vaccine. That mutants can be disadvantageous to man is illustrated by influenza. The pandemic of 1957 was caused by the Asian strain of influenza A virus which was appreciably different antigenically from other known strains. Furthermore, the vast majority of the world populations had no previous experience with this particular strain and hence were susceptible."

It is interesting to note that the first of the successful vaccines, i.e., that against smallpox, was described by Jenner almost a century before viruses were recognized as such.

VIRUS LATENCY

After a virus infects a cell a variable but usually short period of time ensues when no complete viral particles are detectable. This period, when only subtotal viral fractions are present, has been called the provirus phase. However prolonged periods of latency have also been repeatedly observed especially with bacterial viruses. As Hirst[2] has said, "The primary host for herpes simplex is man. Infection usually takes place early in life. This is ordinarily followed by a latent infection which can persist throughout life, being activated by various physiologic states such as menstruation or affected by the occurrence of bacterial infections in the host. Lymphocytic choriomeningitis virus often induces a chronic asymptomatic infection in mice. Nestling psittacine birds which survive psittacosis become healthy; yet, while they show no symp-

toms, virus can be found in the spleen where it may be multiplying slowly. Physiologic and environmental effects are able to upset this balance, and crowding, for example, will cause some birds to become ill and excrete virus."

Other examples exist, but the tumor viruses are worthy of special comment here because of the serious crippling effects of malignancies. Viral causation of malignancies is still questioned by some. However the latency period associated with tumor viruses is prolonged and exhibits special phenomena such that the infectious agent may be transmitted through the egg or through maternal milk. The virus grows in certain cells for long periods without giving any evidence of its presence. There is some evidence suggesting that there is a relationship of the virus with cellular genetic material.

CARCINOGENIC AGENTS

One example of latency often cited is that of Shope papilloma virus in domestic rabbits in which tumors can be incited by virus but where detectable virus growth is rarely found. However the virus produces tumors in the wild rabbit also and here virus is readily recoverable suggesting host variability.

The suggestion that tumors might have a viral etiology was given substance by Rous[4] with the discovery that filtrates of chicken tumors had the capacity to induce tumor formation in injected fowl. Other examples include kidney tumor of the leopard frog, breast cancer of mice, and mouse leukemia.

Whereas coal tar derivatives, chrome in certain forms, and aniline dyes have also been shown to be carcinogenic, we are reminded of the probability that tumor formation follows some change in the genetic material of a cell.

A RESEARCH KEY TO CRIPPLING EFFECTS

Human DNA is a giant molecule several million times as heavy as an atom of hydrogen, yet too small to be seen in detail with the electron microscope. Its long double helix chains, composed alternately of a sugar called deoxyribose and phosphate, are interconnected, as with rungs on a ladder, by nitrogen bases which are grouped as adenine and thymine or as guanine and cytosine for each connecting rung on the ladder. This marvelous structure can uncoil and divide lengthwise between its nitrogen base connections something like sawing down the middle of the rungs on a long ladder. This divided structure can recombine, and, more amazing, each half can produce its counterpart because in DNA the thymine will join only with adenine and guanine only with cytosine. These bases plus amino acids, for example, are present within the normal cell and are utilized as needed. In each instance the nitrogen base is attached only to the sugar portion of the long side chains.

It is now widely accepted that the nitrogen base sequence along the chain determines the hereditary code for that given individual and his species. It is evident that the four nitrogen bases, namely, adenine, guanine, thymine, and cytosine can be arranged in a tremendous number of different sequences on a long chain. Since there are multiple DNA molecules per chromosome and 46 chromosomes in normal humans, individual variety within rigidly controlled species distinction is mathematically possible.

Present evidence indicates that the DNA code is responsible for developing, maintaining and controlling the nature of every cell of each individual of every species of all plants and animals on earth. DNA controls the production of RNA templates which in turn control the synthesis of all proteins including enzymes and hormones. At present it seems probable, for example, that one's DNA determines whether one is born with or without a normal thymus gland, and hence with or without the capacity to develop a normal immunological system.

Perhaps, therefore, your individual DNA with its specific nitrogen base sequence, through control of production of proteins, enzymes and hormones, determines, in large measure, what crippling effects you will have, if any, from a given viral infection. ★★★

800 Second Avenue

REFERENCES

1. Luria, S. E., in Rivers, T. M.: Viral and Rickettsial Infections of Man, ed. 3, Philadelphia, J. P. Lippincott Company, 1959, p. 98.
2. Hirst, G. K., in Rivers, T. M.: Viral and Rickettsial Infections of Man, ed. 3, Philadelphia, J. P. Lippincott Company, 1959, pp. 98 and 132.
3. Smadel, J. E., in Rivers, T. M.: Viral and Rickettsial Infections of Man, ed. 3, Philadelphia, J. P. Lippincott Company, 1959, pp. 3, 5, and 6.
4. Rous, P.: Transmission of a Malignant New Growth by Means of a Cell-Free Filtrate, J.A.M.A. 56:198 (Jan. 21) 1911.

Radiologic Seminar VIII: Foreign Bodies in the Esophagus

TOM B. DOMINICK, M.D.
Vicksburg, Mississippi

THE ESOPHAGUS ADAPTS itself to many types of food and transports them rapidly to the stomach.

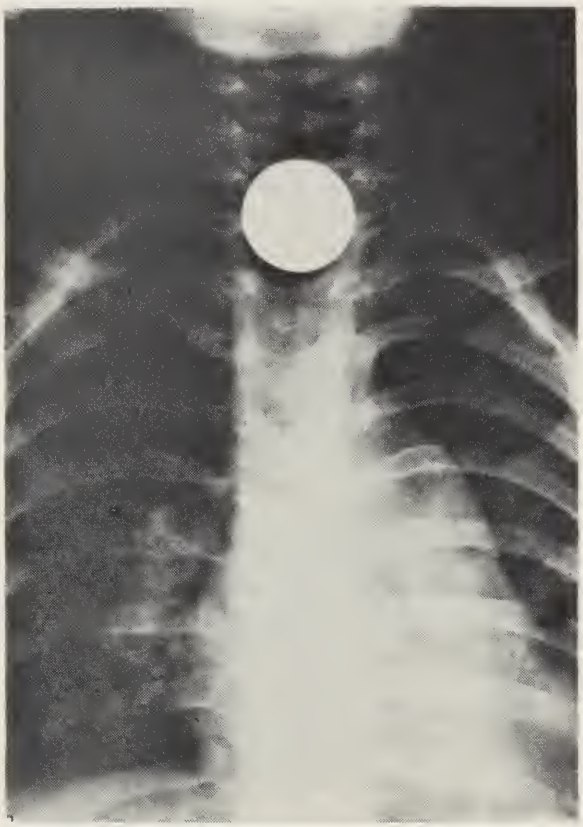


Figure 1. A coin lodged in the esophagus at the cricoid level, which is the most frequent site for obstruction.

Not infrequently, particularly in infants and young children, the esophagus is called upon to transport a foreign body. Small, smooth articles pass through the oral pharynx and esophagus without difficulty. However, large and irregular foreign bodies such as safety pins and coins are prone to lodge in the hypopharynx or cervical esophagus.

The uppermost point at which a foreign body is apt to be arrested lies at about the level of the



Figure 2. Foreign objects in the esophagus come to rest with their widest diameter at right planes to the sagittal plane of the body. This illustration, as Figure 1, shows a coin lodged at the cricoid level.

Sponsored by the Mississippi Radiological Society.
From the Department of Radiology, Street Clinic-Mercy Hospital.

cricoid cartilage. The lumen of the esophagus at this point is flattened by the cartilage of the larynx anteriorly and the sixth cervical vertebra posteriorly; thus foreign objects come to rest with their widest diameter at right angles to the sagittal plane of the body (Figure 1 and 2). The matter of position is important because similar objects lodged in the trachea will be found to lie with their thin edges presenting front and back. A lateral view usually shows the air-filled trachea to be anterior to the foreign body when it is lodged in the esophagus (Figure 3).

The second most common point where objects lodge is at the level of the left main stem bronchus where it causes a slight narrowing of the esophagus. The third area where a foreign body is likely to stop is where the esophagus passes through the diaphragm.



Figure 3. A small pork bone lodged in the esophagus. Note the air-filled trachea anterior to it.

Nonopaque objects present a more difficult problem in diagnosis. Frequently they will scratch the hypopharynx or esophagus on their way to the stomach. This may cause pain or an abnormal "feeling," and the patient will insist that the foreign body is still present. In these cases examination under the fluoroscope using barium and small pledgets of barium-soaked cotton is most helpful. This examination will usually rule out a foreign body or help locate its position.

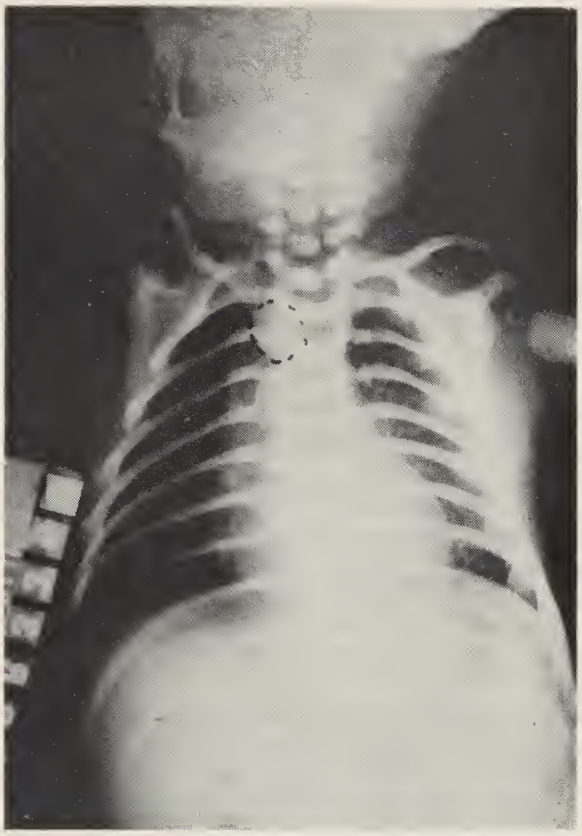


Figure 4. The manubrium has been outlined; however, on the x-ray film it is much better defined. This ossification center should not be confused with a foreign body.

In an infant in whom a foreign body is suspected it should be remembered that frequently the ossification center for the manubrium may be well outlined on chest radiographs if the child is slightly rotated (Figure 4). This may be mistaken for a foreign body by those unaccustomed to examining pediatric radiographs. ★★★

The Street Clinic-Mercy Hospital

REFERENCES

1. Buckstein, Jacob: The Digestive Tract in Roentgenology, Philadelphia, J. B. Lippincott Company, 1948, pp. 77-79.
2. Golden, Ross: Diagnostic Roentgenology, Baltimore, Williams and Wilkins Company, 1961, vol. 2, chap. 5, pp. 281-282.
3. Hodges, Fred Jenner: Gastro-Intestinal Tract, Chicago, Year Book Publishers, 1945, pp. 48-51.

Clinicopathological Conference XXXV

Conducted by the Department of Pathology
University of Mississippi School of Medicine
Jackson, Mississippi

In CPC XXXV Dr. John R. Snavely discusses the case of a patient who died of heart failure following a myocardial infarction. Since this diagnosis is well documented, he does not elaborate on it, but considers other significant aspects including a mass in the right upper quadrant and a terminal mechanism disturbance.

Other discussers are Drs. Robert D. Sloan, B. B. Johnson, Thomas M. Blake, and Jerry N. Clanton.

Dr. John R. Snavely: "To jump to the end of this man's rather colorful history, we would all agree that he died of heart failure following a myocardial infarction (which Dr. Blake tells me is superbly documented) with pulmonary edema and perhaps with an important terminal mechanism disturbance. I won't elaborate particularly on these diagnoses, because they appear almost self-evident. I shall try, however, to make something of this mass in the right upper quadrant and to develop some of the other interesting findings which were present.

PROTOCOL

"To go back to an annotated reading of the protocol, as is our custom, this man was 66 when he presented here on April 4 for an evaluation of the state of his health. This, I imagine, actually had to do with his retirement as well as his employability. He was 66 and had been known to have hypertension for a good many years but had never been treated for it.

"In 1952 a papillary carcinoma was removed from the urinary bladder, and two years later the right kidney, which contained a large calculus, was removed because of infection. I might digress and say that we have positive bacteriological confirmation of the existence of pyelonephritis in the remaining kidney. We will accept that as part of the diagnosis although I don't believe it is extremely important. Dr. Johnson will discuss this also.

"In January of 1960 he was hospitalized because of some kind of trouble that we don't know much about, but there is a hint at least that he had gallstones and that some of the fever and discomfort that he was having at this time were manifestations of cholecystitis. I can neither affirm nor negate this. Again, I am not convinced that this is an important part of his illness, although it could be if he had ascending cholangitis and obstructive-infective biliary cirrhosis leading to hepatic insufficiency. It would be helpful to know if he did have these stones or not. Perhaps Dr. Sloan will be able to assist us with that later.

"He had hypertension primarily of the hard artery variety with a high systolic pressure and only a modestly elevated diastolic pressure. A systolic murmur was heard and a firm right upper quadrant mass was detected four finger breadths below the right costal margin. It is interesting that this is referred to simply as a mass rather than as hepatomegaly. This makes me wonder whether the mass was knobby or unusually hard. A right upper quadrant mass is usually an enlarged liver, although of course this is not invariable.

INITIAL EXAMINATION

"Rectal examination was negative. I think this is of some interest because while papillary carcinoma in the bladder is malignant in the pathologic sense, it is usually locally invasive and not a conventional source of distant metastasis, which should be considered here because of the hepatomegaly. There was no leukocytosis. There was

modest anemia with nonspecific corpuscular constants. BUN was a bit up. There was no evidence of diabetes, and the serum albumin and globulin were not diagnostically significant. There was some jaundice, 1.3 mg. of total bilirubin which really isn't outside of the normal limit, and slight elevation of the alkaline phophatase, but again 19 doesn't amount to much. There was significant BSP retention at 36 per cent. The cephalin flocculation was negative. The ECG was nonspecifically abnormal. The patient was discharged after a thorough study to be seen by his local physician.

"The patient, in stupor, was readmitted a few days later on April 19. A history obtained from a third party indicated that over a ten day period he had become inactive and lethargic, losing his sleep rhythm, and that he had had periods of hyperactivity with excessive talking. During this admission a history of abdominal swelling and some jaundice was obtained. Of course, these are manifestations of chronic liver disease, cirrhosis in particular, and one is inclined to advance a diagnosis of some kind of cirrhosis. There was ascites, and we know from competent observers that ascites was absent before. The mass again was present and now there was some edema of the legs. There were no neurologic findings although bilateral Babinski signs were sought and at least one observer thought they might be present.

LABORATORY REPORT

"The WBC was not diagnostically significant. The anemia was not a great deal worse than it had been before. The electrolytes didn't help much. There was hypoprothrombinemia. The 1 stage test turned out to show a factor X defect. There was a slight elevation of the SGOT. The BUN was now up a little bit more than it had been and the pseudomonas to which I have alluded before was detected in the urine. It was thought that he had congestive heart failure. This came as a bit of a shock to me because I wasn't thinking particularly along those lines and was more inclined to blame his ascites on liver disease.

"His level of consciousness improved, and he was able to sit in his chair. He had lost 6 pounds. It appears to me that this man's disorientation and lethargy was an episode of hepatic coma and had we been able to document it we might have been able to show that he did have an elevated blood or spinal fluid ammonium at this time. It remains, however, a clinical diagnosis, and I think that this is a good one in a patient with ascites and this particular type of disorientation. He developed acute pulmonary edema, and cyanosis and EKG were diagnostic. We are told there was a myocardial infarction. He developed ventricular tachycardia, which is one of the grave complications of this disease, and this reverted on treatment. He began to deteriorate, vomited some coffee-ground material, and then went into shock requiring more and more vasopressors.

"It is easy enough, I suppose, to blame the drop in blood pressure on the myocardial infarction. It is also possible though that this dark blood flowing freely from his mouth was from ruptured esophageal varices. As a matter of fact, this could have lowered his blood volume in a transitory fashion and predisposed him to the infarct, thus starting his vicious spiral downward. This is speculation though, and we might as well accept the obvious and say he died in pulmonary edema following a myocardial infarction. I think before we call on Dr. Johnson and Dr. Blake that this would be a good time to see the films."

X-RAY DATA

Dr. Robert D. Sloan: "A chest film taken at the time of first admission is innocent in appearance in spite of his long history of hypertension. The heart does not appear to be grossly enlarged, and although the film is somewhat overexposed, the vascular pattern in the lung fields is within normal limits. Another chest film was obtained at the time of his second admission prior to the myocardial infarct episode and again there is nothing to suggest congestive failure. There is a hump in the right hemidiaphragm. Rarely this turns out to be a hepatoma or some other mass in the liver, but statistically these are usually so-called weak leaves of the diaphragm and are of no significance."

Dr. Snavely: "Was that present earlier?

Dr. Sloan: "No, but this may be related to the phase of inspiration. On a cholecystogram the gallbladder does not opacify, but this is of dubious significance in view of the BSP retention that was present. There are three small calcific densities in the right upper quadrant which certainly suggest gallstones. An intravenous pyelogram was obtained on the first admission. The left drainage tract radiologically looks perfectly normal. There is no visualization of the right drainage tract, which seems proper in view of the history of nephrectomy."

Physician: "Does the left kidney look large?"

Dr. Sloan: "Perhaps a little big, but not strikingly so."

Physician: "Are there adequate signs for ascites there?"

Dr. Sloan: "No, none that I identify. Unfortunately, there is not enough opacification of the bladder by the contrast material to permit diagnostic evaluation. Sometimes you can evaluate the bladder reasonably well on IVP, and it would have been of interest here in view of the old history of tumor."

Dr. Snavely: "Dr. Blake, do you want to comment?"

QUESTION OF ASCITES

Dr. Thomas M. Blake: "I would like to comment also on the question of there not being any ascites. Perhaps it should be said that no ascites was recognized, and I was one of those responsible for that observation. I thought there wasn't any ascites at the time of the first admission, but he was a big fat man and there could well have been some. I saw him the second admission only in passing in the corridor so I can't comment about that on the basis of remembering the patient. From the cardiovascular point of view he was a hypertensive who had an acute posterior myocardial infarct and ventricular tachycardia and died in pulmonary edema. There is not much to add to that."

Dr. Snavely: "Dr. Johnson, do you want to add anything?"

CHRONIC PYELONEPHRITIS

Dr. B. B. Johnson: "Although the heart and liver seemed to dominate this catastrophe at the end, it could have begun with chronic pyelonephritis and secondary hypertension leading to heart failure and liver enlargement secondary to the heart trouble, thus placing the ultimate blame on the kidney. I think he did clearly have pyelonephritis caused by pseudomonas in the left kidney. After seeing how large that left kidney is, I do not think we can say that he had long-standing disease that impaired renal function. This leads me to stress again the fact that BUN is a fine screening test but notoriously nonspecific for renal disease. BUN was only slightly increased on the first admission but two weeks later was up from 29 to 38 mg. per cent. Such a rise could occur with the GI bleeding, if he did have varices, and this is exactly the sort of situation where you wish for a creatinine determination, to distinguish prerenal causes from acute renal disease. Furthermore, he was given mercurials, which is not always safe or wise in a patient who has azotemia. I can not be sure that serious renal disease is not a major part of the problem, but I do not think it is from what we know. It would have been helpful to have followed his BUN after admission and to have measured at least one serum creatinine."

DISCUSSER'S DIAGNOSIS

Dr. Snavely: "Thank you. I think that just to write off these facts that we will assume that he died of myocardial infarction and shock secondary to that. He probably did have some left ventricular hypertrophy on the basis of his long-standing hypertension, and he probably also had evidence of pyelonephritis due to Pseudomonas in the remaining kidney. But I believe that these are incidents rather than the central feature of his illness. I believe that the central feature of his illness, as I mentioned earlier, is something connected with his liver. I think this is manifested early by the BSP retention and earlier than that by the history of jaundice and ascites which was reported on the second admission and in the middle part of his illness by this disorientation which I shall consider to be hepatic coma. I think there is adequate—although not overwhelming—laboratory documentation for such a diagnosis.

"What is it? It doesn't appear to be acute hepatitis. This would be an unusual way for acute hepatitis to behave. I think it is some kind of cirrhosis, or, as Dr. Sloan has mentioned, it might well be replacement of his liver by tumor. The two are not necessarily exclusive. I hope you will recall that with postnecrotic cirrhosis or posthepatic cirrhosis complicating hepatoma is common. We don't know whether this man was addicted to liquid tranquilizer or not or whether he went without food over prolonged periods of time. It would be nice to know this, but we don't. I shall guess that he has cirrhosis of the liver.

"I really can't choose among the varieties of portal cirrhosis, and I wouldn't speculate whether it was nutritional or nonnutritional, or whether hepatoma or metastatic deposits were present. The usual laboratory findings in metastatic disease of the liver is for the BSP retention and the alkaline phosphatase retention to be out of proportion to the other signs of liver dysfunction. With these stones that Dr. Sloan has called our attention to, he could have had obstructive-infective biliary cirrhosis and the terminal picture here is not different clinically than it is in the other possibilities that I have mentioned.

"Just to get off the hook and to get the show onward, I will say that he has cirrhosis of the liver, nonnutritional variety and lots of it, with portal hypertension and nodular regeneration. I would consider hepatoma as a distinct possibility along with obstructive-infective biliary cirrhosis, but I can't really discuss them with any security. It would have been helpful if this ascitic fluid had been sampled. Now and then you find it is pure blood. When that is the case, you have good evidence of hepatoma. If it turns out to be pus, then you are off to a good start on ruptured viscus or tuberculous peritonitis. If you just get the conventional fluid that you get in cirrhosis, then you can be a little more secure about it. Anybody else want to offer a diagnosis?"

AUTOPSY REPORT

Dr. Jerry N. Clanton: "Our examination of this patient was begun approximately two hours post mortem. The external examination revealed no evidence of jaundice, and the liver was not palpable. There was obvious bloody material coming from the mouth. The peritoneal cavity contained approximately 200 cc. of yellow fluid, and it was immediately evident that the liver was decreased in size and did not extend below the right costal margin. The heart weighed 470 gm., representing a mild degree of hypertrophy. There was a recent infarct involving the posterior one-third of the septum and the posterior wall of the left ventricle. The infarcted area was yellow and opaque, with some hemorrhage around the periphery. Microscopic sections of this muscle showed acute necrosis with many polymorphonuclear leukocytes infiltrating the muscle fibers. A small mural thrombus was attached to necrotic endocardium in the left ventricle (Figure 1).



Figure 1

"The myocardial infarct was attributed to a thrombus which began approximately 1 cm. from the origin of the right coronary artery and extended distally for a distance of 4 cm. Sections revealed severe atherosclerosis of the vessel wall, with lipid material extruding into the lumen and overlying thrombus. I have no way of saying whether this represents hemorrhage into a plaque with extention into the lumen or rupture of the plaque and overlying thrombosis. The infarction which was demonstrated is classical for the distribution of the main right coronary artery, namely the posterior one-third of the interventricular septum and the posterior wall of the left ventricle.



Figure 2

"The lungs showed some degree of congestion, with a few red blood cells and hemosiderin-filled macrophages within the alveoli. There was no evidence of pulmonary edema, but each pleural space contained approximately 300 cc. of yellow fluid. The most striking change in the lungs was recent aspiration of bloody material. This was present in most of the large bronchi, particularly the ones posteriorly, with associated atelectasis. The source of this blood was esophageal varices which were demonstrated clearly on gross examination and in microscopic sections.

"Figure 2 illustrates ulceration of the mucosa of the esophagus, with acute inflammatory reaction and partial thrombosis of underlying dilated veins. The underlying vessels appear eroded at points. There was approximately 1 liter of bloody fluid within the stomach, and there were numerous small superficial ulcerations present also within the stomach. Throughout the small intestine there

was an estimated 2 liters of bloody material. I think this would explain the increase in the BUN and also the drop in hematocrit which occurred.

"The liver is the interesting feature of this case. It weighed 1020 gm., representing a considerable

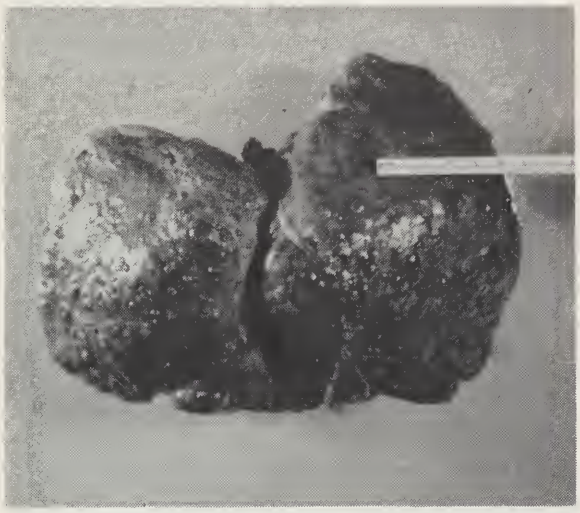


Figure 3

decrease in weight. This liver showed extensive scarring throughout (Figure 3). There are broader areas of scarring in some places than in others. The nodulation should be noted. There is considerable variation in the size of the nodules from approximately 1 to 8 mm. in diameter. This is important in differentiating one type of cirrhosis from the other. The color is also of some importance. The color is a brownish yellow in contrast to the more distinctly yellow appearance which we see in nutritional cirrhosis. These changes are well illustrated in the cut section of the liver (Figure 4). This is felt to represent postnecrotic cirrhosis, though the small size of the regenerating nodules makes differentiation from posthepatic cirrhosis somewhat difficult. The gallbladder did contain three stones as were evident in x-ray examinations, and there was chronic cholecystitis.

"The next photograph (Figure 5) illustrates the extensive scarring, proliferation of bile ducts, and extensive infiltration by lymphocytes and plasma cells seen in the microscopic sections. There is extensive proliferation of bile ducts. Areas of necrosis were evident in the central portions of many regenerating nodules. This necrosis might be explained on the basis of prolonged shock, a change which we see quite frequently. The spleen showed chronic passive congestion.

"Our primary diagnoses consist of a large posterior myocardial infarct secondary to recent thrombosis of the right main coronary artery, and severe postnecrotic cirrhosis of the liver, with recent bleeding from associated esophageal varices. There is one feature which I would like to point out about this case. There has been reported a decreased incidence of myocardial infarction in patients with cirrhosis. Reported reviews of large numbers of autopsies have shown approximately one-fourth as many cases of infarction in patients with cirrhosis as in other patients within the autopsy series. This has been postulated to be due to increased fibrinolysis which is present in these patients."

Physician: "Was the kidney normal?"

Dr. Clanton: "Yes, except for slight enlargement."

Physician: "And there was no mass?"

Dr. Clanton: "No mass was present."

Physician: "Was the bladder normal?"

Dr. Clanton: "The bladder was normal. Are there any other questions that I didn't cover?"

ATHEROSCLEROSIS INCIDENCE

Dr. Snavely: "Yes, I would like to say a couple of things. First, I think that was an excellent pathologic presentation, and I think it will nail down a number of things that we have commented on repeatedly about liver disease. I could comment on a couple of things that you asked about. There are at least two studies that are fairly good indicating the incidence of atherosclerosis is less in cirrhosis of the liver than chance would call for. However, there are also at least two equally good studies showing that there isn't any difference.



Figure 4

Perhaps Dr. Blake would like to comment on that before I go on."

Dr. Blake: "Yes, this is also true of other diseases associated with cachexia."

SUMMARY

Dr. Snavely: "It is true that statistically the total serum cholesterol in patients with cirrhosis runs normal to low rather than normal to high. The second point I would like to make is that Dr. Clanton is referring, I believe, to Dr. Gall's classification of cirrhosis.[1] There are other people who have an intense interest in this who would get around at least some of this difficulty by saying that there are two varieties of postnecrotic cirrhosis—coarsely nodular and finely nodular.[2] Whether a given individual gets one or the other depends on the massiveness of the hepatic insult. Perhaps this difficulty will be resolved when the virus cultivators get around to growing or not growing virus out of this type of material.

"The third point I would like to make is that I think it likely that this man did bleed from his varices and that complicating hepatic coma appeared. The circulating blood volume then shrank down until it put unusual demands on a stenosed coronary vessel which eventually occluded. The fourth thing that I want to mention is that it is not an unusual finding at all for the liver to weigh 1000 gm. and to be easily palpated. Everyone thinks it is enlarged and then on autopsy you find that the nonviable diaphragm has allowed it to recede above the edge of the ribs. I think the liver was originally palpable but by the time of the terminal examination, it was no longer perceptible."

DIAGNOSES: (1) Acute posterior myocardial infarction secondary to thrombosis of right main coronary artery.

(2) Postnecrotic cirrhosis of liver, severe, with recent bleeding from eroded esophageal varices. ★★★

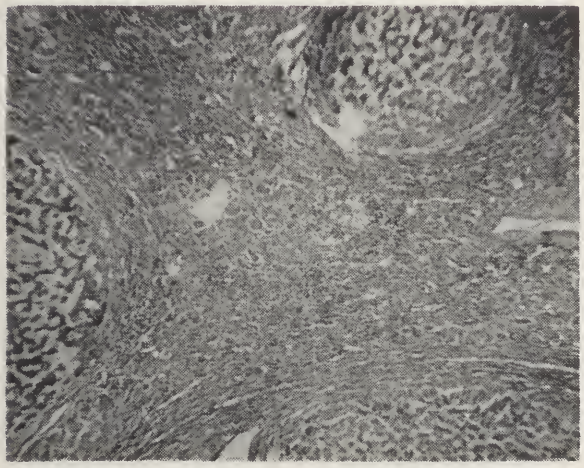


Figure 5

2500 North State Street

REFERENCES

1. Gall, E. A.: Posthepatic, Postnecrotic, and Nutritional Cirrhosis, Am. J. Path. 36: 241 (March) 1960.
2. Baggenstross, Archie H., and Stauffer, Maurice H.: Posthepatic and Alcoholic Cirrhosis; Study of 43 Cases of Each, Gastroenterology 22:157, 1952.

LIMITED TO PEDIATRICS

Two Jackson grandmothers were bragging about their grandchildren, and one, quite impressed, asked the other:

"How old are your grandsons?"

"Well," replied the other with great personal pride, "the doctor's two and the lawyer's four."

Caution: Quacks Ahead

C. P. CRENSHAW, M.D.
Collins, Mississippi

Each year arthritis sufferers spend $250 million for worthless nostrums that do no good and often much harm. In this talk to state volunteer workers with the Arthritis and Rheumatism Foundation, Dr. Crenshaw cites an informed public as the most effective weapon against quackery. He urges the workers to tell the public that there is no known cure for arthritis and that medical science is doing everything possible to discover a cause and a cure. In the meantime, he says, arthritics should be encouraged to see their physicians as often as necessary—and to stay away from quacks and self-medication.

IF, IN THE NEXT 12 MONTHS, every volunteer worker in the Arthritis and Rheumatism Foundation did only one thing, they should have performed one of the greatest services possible to victims of arthritis. And it's simply this:

—Inform the American public that there is no known cure for this disease condition,

—Tell everybody that medical science is doing everything possible to discover the cause and, logically, a cure for arthritis,

—Urge all persons suffering from arthritis to consult their family physician with such regularity as he deems necessary,

—And stay away from quacks and self-medication!

It's a sad commentary that within five minutes walking distance from this meeting place, the arthritic can purchase a variety of worthless nostrums ranging from alfalfa tablets to overpriced dietary foods to a chiropractic adjustment. A 15 cent box of aspirin will do him more good!

Ancient Egyptians are known to have experienced osteoarthritis, as disclosed during "post mortem" examinations on 6,000-year-old mummies. Hippocrates wrote about this disease 300 years before Christ. We are confronted with it today as an urgent medical problem.

Medicine is gratified, but by no means satisfied, with the drugs and technics available for treatment of arthritis. Perhaps in this respect medical research has not emphasized arthritis to a sufficient extent. The dramatic victories over the infectious diseases, astonishing advances in surgery, promising progress against cardiovascular conditions and cancer, and a host of other gains suggest that more might have been done for the arthritic. But growth of medical knowledge is not proportionately quantitative in all areas. We have yet to find a cure for the common cold.

What alarms and distresses physicians is the apparent willingness of otherwise highly intelligent patients to place confidence and trust in a quack and his nostrums. With the arthritic, this is especially tragic because management of his condition is dependent upon total cooperation among the patient, his family, and the physician. Yet, we know reliably that 11 million arthritis sufferers are fair game for the quacks and peddlers of worthless nostrums. This flim-flam costs them $250 million a year.

There are six simple rules of thumb for spotting a quack, so the AMA's Bureau of Investigation tells us. Beware of him:

(1) If he claims to be a "medical expert" who uses a special or "secret" machine or formula which he claims can cure a disease.

President, Mississippi State Medical Association.
Read before the Second Annual Meeting, Arthritis and Rheumatism Foundation, Mississippi Chapter, Jackson, Sept. 20, 1962.

(2) If he guarantees a cure.

(3) If he advertises or uses testimonials to promote his cure.

(4) If he clamors for medical investigation and recognition.

(5) If he claims that doctors are persecuting him or are afraid of his competition.

(6) If he tells you that surgery, x-rays, and drugs will cause more harm than good.

The arthritic who is uninformed about his disease condition is a natural for the quack. Pain and progressive deterioration make men grasp at straws, and the quack tells the patient what he wants to hear. The glib guarantees of a cure, freedom from pain, and empty promises of functional restoration make good listening for the distressed arthritic.

TRI-WONDA

We need not leave the city limits of Jackson to find a good example of a quack nostrum. In the early 1950's, a local woman widely advertised a product which she called "Tri-Wonda" as a treatment for arthritis and rheumatism. It was a sellout despite its being a worthless concoction priced at $10 a package. Listen to what this three-way nostrum contained:

Tri-Wonda number one: A dilute solution of hydrochloric and nitric acids with traces of tartaric and acetic acids.

Tri-Wonda number two: A mild laxative containing cream of tartar, senna, sulfur, and phenolphthalein.

Tri-Wonda number three: A wild cherry flavored mixture of fluid extract of Jamaica dogwood and thiamine hydrochloride dissolved in 44 per cent alcohol.

The patient could have gotten the same effect by eating half a lemon and taking a dose of milk of magnesia, but that wouldn't have cured the arthritis, either!

In 1953, the Food and Drug Administration proceeded against the owner of the Tri-Wonda outfit in federal court. The Mississippi State Medical Association associated itself with the government and entered the case as *amicus curiae,* a friend of the court. It took seven years of litigation, but the decision was against this fraud in the U. S. Circuit Court of Appeals. There is a lesson here: We must fight each and every quack and nostrum, and we must never give up.

Still another danger to the arthritic is the worthless machine which is represented as being of benefit in treatment of the condition. Mechanical quackery began thousands of years ago when primitive people first made charms to ward off evil spirits and cure disease. More recently, the discovery of electricity made possible new forms of useful, valid techniques of medical diagnosis and treatment, but it also opened new fields for mechanical quackery.

For example, electricity has made possible x-ray, electrocardiography, electroencephalography, electrosurgery, and a host of beneficial devices. But along with these legitimate scientific machines came numberless weird gadgets represented as being able to cure just about anything.

At the turn of the century, the medicine men began to throw away their snake oil in favor of "electric belts" that cured by magnetism. Interestingly enough, the man who "discovered" chiropractic, one D. D. Palmer of Davenport, Iowa, was a magnetic healer after he went broke in the grocery and fish business. Such was the "scientific" beginning of chiropractic.

Soon the quacks began to use machines that gave harmless jolts of electricity, but as people became familiar with this new source of power, the novelty wore off. Not to be denied their easy money, the quacks dreamed up more sophisticated machines claimed to generate "unknown forces."

By 1938, there were all sorts of these gadgets which were promoted for the cure of every known disease. There were colored lights, electric generation of dangerous gases including chlorine and ozone, radio waves, heat, vibration, and massage. That same year, the Congress amended the Pure Food and Drug Act to give FDA jurisdiction over these dangerous and useless devices. Interstate traffic in hundreds of such machines has been stopped and some of the most notorious medical swindles of all time were thus exposed.

But in this enlightened age we still need to be vigilant and mindful that the quack will always be with us. And he'll always have a new angle, too.

FOOD FADDISTS

Take the food faddists, another lethal form of quackery practiced upon the gullible, including arthritics. He has a classical pitch to which you must always be alert and it's this:

(1) Most disease is due to improper diet.

(2) Soil depletion causes malnutrition.

(3) Chemical fertilizers poison the land and the crops grown in it.

(4) There is wondrous power in wonder foods.

(5) Certain types of cooking utensils are harmful to foods.

(6) Processing and cooking removes nutritional values in food.

(7) Subclinical deficiencies are a constant danger to your health.

This is a bunch of dietary hogwash totally unsupported by the facts. And the medical profession wants the facts well known. When the quack says that most disease is due to improper diet, he is, of course, dead wrong. Some few diseases are so caused, such as pellagra, but they are relatively unknown in the United States. American food is unsurpassed in volume, variety, and nutritional value. We actually have to go out of our way to avoid being too well nourished.

Dr. Elmer M. Nelson, the prominent nutritionist, says that the composition of the soil has very little effect on the composition of plants grown on it. If the soil lacks elements needed for growth, the crop simply fails. We also know that the nutritional values of food crops are not in the slightest affected by the types of fertilizers used.

Wonder foods and health specialty articles are widely promoted. Who among us isn't familiar with whole grain cereals, gluten bread, natural sweeteners, and other like items? Such foods are not wonderful by any stretch of the imagination, and they can cure nothing but hunger. Just remember that yogurt is only an expensive form of milk and that the supposed B-complex vitamin content in molasses is slight.

The food quack will tell you that aluminum cooking utensils cause cancer, but research by the American Cancer Society and the U. S. Public Health Service disproves this ridiculous claim. The American Medical Association's Council on Foods and Nutrition has this to say:

"Undoubtedly man has ingested small quantities of aluminum since he came upon the earth because it is widely distributed in nature. Up to the present time, there has been no cogent scientific evidence indicating that the minute traces of aluminum are in any way injurious to the consumer. There is absolutely no scientific basis for claiming that food prepared in aluminum cooking utensils can cause cancer."

Nor will it harm or help the arthritic, either.

Those faddists who would have us all become grazing animals because processing and cooking "destroy" nutritional values probably don't practice what they preach. Modern processing methods are carefully designed to preserve all original values in foods, recognizing that most cooked dishes are not only more easily digested but are more palatable as well.

The subclinical deficiency is one of the quack's most persuasive arguments because it's so technical that it's difficult to deny. After all, we doctors use the term for conditions where there are no observable symptoms. So the public is accordingly afflicted with tired blood, that run-down feeling, and spring fever.

Medicine knows that nobody can go through life without occasionally feeling worn out. There is no more basis for attributing such conditions to subclinical deficiencies than there is for blaming them on nuclear fallout or the phase of the moon. If these minor ailments persist, see your physician. If they do not persist, then forget them and live happily.

Let's not ignore the almost-legitimate quack who victimizes arthritics. Take the recent splash of publicity given one Dr. Robert Liefman in Canada. *Look Magazine,* hardly the most authoritative of medical journals, quoted him as saying that his secret preparation, "Liefcort," could practically wipe out the symptoms of arthritis in one year. Neither Dr. Liefman nor his basement-brewed secret remedy is likely to wipe out anybody's arthritis and much harm could result from his ministrations.

NO EASY ANSWER

Dr. R. W. Lamont-Havers, the national medical director of the Arthritis and Rheumatism Foundation, has some good advice about quacks. He says this:

"There is no easy answer to the problems of arthritis. Widespread circulation of inadequately documented claims encourages the public to think so. Not only are false hopes raised among the millions of arthritis suffers but also public pressure is aroused to devote valuable research time to testing theories which show no promise of being effective."

Dr. Russell L. Cecil, one of medicine's really great men and consulting medical director of the Arthritis and Rheumatism Foundation, puts it this way:

"The treatment of arthritis is difficult at all times, but patients will do far better if they stick to the medical profession instead of listening to all sorts of false and misleading advertisements regarding the wonderful curative power of this or that fake remedy—most of which are nothing more than an expensive form of aspirin."

The fight against the quack is an important front in the over-all war against arthritis. To win will take the concerted efforts of physicians, patients, and informed workers. ★★★

Crenshaw-Folse Clinic

JOURNAL OF THE
MISSISSIPPI STATE
MEDICAL ASSOCIATION

Volume III, Number 12

December 1962

EDITORIALS

The Phony Case Against Hospital Usage

I

HOSPITAL UTILIZATION is a term with nasty overtones and dirty connotations. For physicians, it sometimes suggests that nonmedical sources are telling them whom to admit for what reason and how long they should stay as in-patients. For hospital trustees and administrators, the expression conjures up nightmares of cost problems associated with seasonal and daily fluctuations in census, personnel staffing difficulties, and constant recurring overhead. For private insurance and voluntary prepayment plans, it is one of many measures of useful benefit distribution. And now the public is becoming curious about it.

One hospital executive, L. S. Rambeck of Seattle, puts it this way: "Only recently, hospitals have discovered that their affairs are of considerable public interest. Mounting costs, rapid growth in prepayment, and huge expenditures for new and improved facilities have brought about this unprecedented focus on the way they function. This interest should be regarded by doctors, hospital administrators, and prepayments leaders—not as intrusion into a private world—but as an opportunity to tell an important story that is badly in need of being told. Under our nation's well-established traditions of freedom, we have earned the privilege of access to superior medical services and facilities. Why this has happened is not well understood."

II

The popular press is replete with articles about hospital use and hospital costs. The recently-defeated King-Anderson bill proposed a form of federal control over hospital utilization. The insurance commissioner of the commonwealth of Pennsylvania denied a Blue Cross rate increase application because he doubted that "the details of the plan's coverage and administration encourage wise utilization of hospital care to get the most out of the health dollar." A questionable poll of 222 Maryland physicians turned up a whopping 77 per cent who felt that hospital facilities are used in an uneconomical or unnecessary manner.

Whether these charges and trends are valid or not—and reliable evidence suggests they are not —really isn't the crux of the issue. The export of liberal political philosophy is just as easily accomplished with a vehicle of half-truth and fallacy as with a wheelbarrow full of probity. It's a shameful commentary upon the times that the more emotional the issue, the more creditable it becomes.

III

The first thing that needs understanding is this: hospital utilization is first, last, and always a mat-

ter of medical judgment. Nobody claims that physicians are infallible but their record is better than good. Nor does anyone claim that there is no misuse of hospitals, either, but really valid evidence in this respect is unconvincing statistically and often questionable factually.

Here are facts to hang your hat on: the University of Michigan studied hospital utilization with reference to 11,000 patients in 47 institutions over a three year period. To insure validity, 18 admitting diagnoses, constituting 47 per cent of discharges, were selected for examination in depth and these evaluative criteria were applied to 4,750 patients.

Only 2.4 per cent of admissions could be classified as unnecessary and the maximum increase in this finding hit only 4.3 per cent by excluding five mandatory, key diagnostic categories. Overstay, in a most literal sense, occurred in 9.6 per cent of the sample but virtually every case was modest, merely one or two days. What was surprising—in view of popular charges of unnecessary admissions and too many expensive diagnostic tests—was a finding of 6.8 per cent *understay* in the opinion of the study's medical consultants and a 29.4 per cent of under-use of laboratory facilities. Since no eyebrow-arching variations in morbidity and mortality emerged from the studies, the parsimonious use of lab tests couldn't honestly be tagged bad medicine, either.

IV

Mr. Rambeck sums it up quite aptly: "The longevity of the voluntary system which has produced the high standards of medicine we now enjoy may well depend upon the effort we all now extend to maintain public confidence through better understanding." All in the world he's saying is to explain that, dollar for dollar, Americans are getting their money's worth in health.—R.B.K.

Hoddy Toddy!

In his feature page this month, the president of the association makes a strong case against compulsory medical care for the aged under Social Security. His key illustration is opposition by the aged themselves. Now comes an equally important front of opposition from the young.

During registration last September, incoming Ole Miss students, as well as all faculty members, were asked their position on King-Anderson-type legislation by members of Alpha Epsilon Delta, the international premedical honor society. Results of the poll, released by David Ball of Columbia, Miss., president of the society, showed opposition to the administration program by more than a 2-to-1 margin. Final compilations were:

Strongly favor, 11.2 per cent.
Moderately favor, 16.6 per cent.
Moderately oppose, 12.6 per cent.
Strongly oppose, 45.2 per cent.
No opinion, 14.4 per cent.

Thus, the tally is 57.8 per cent opposed and 27.8 per cent in favor of the compulsory Social Security tax mechanism. Hats off and a special "hoddy toddy" to the University of Mississippi.—R.B.K.

That AMAzing Outfit

Pressures of socioeconomic issues and recurring routine scientific endeavors tend to obscure the enormously varied, substantial, and useful work of the American Medical Association. At the recent 16th Clinical Session at Los Angeles where annual reports were presented, even veteran AMA convention-goers were astonished at the breadth of activity of medicine's parent body.

When the proceedings of the meeting are published, every physician—regardless of his personal



"I only hope I don't chicken out at the last minute!"

sphere of professional interest—will find satisfaction is skimming through the hundred of pages of hundreds of concise reports to develop some appreciation of what his annual dues are purchasing for the patients he serves, the profession of medicine, and, most especially, for himself.

Such a reading should convince almost anybody that no organization in the world, be it scientific, technological, commercial, or cultural, can approach the doctors' own AMA in capacity, capability, and versatility. And, as an arguing point, it's safe to invite evidence to the contrary.—R.B.K.

NEW MEMBERS

The following physicians have been elected to membership by their respective component medical societies in the Mississippi State Medical Association and the American Medical Association:

HADLEY, JAMES DONALD, Bay Springs. Born Okolona, Miss., March 3, 1931; M.D., Louisiana State University School of Medicine, New Orleans, 1957; interned Charity Hospital of Louisiana, New Orleans, one year; general practice residency, Huey P. Long Charity Hospital, Pineville, La., one year; captain, U. S. Air Force, two years; elected Sept. 13, 1962, by South Mississippi Medical Society.

MARASCALCO, JOHNNY ANDREW, Greenville. Born Grenada, Miss., Nov. 6, 1930; M.D., Tulane University School of Medicine, New Orleans, La., 1956; interned Charity Hospital of Louisiana, New Orleans, one year; residences, Duke Hospital, Durham, N. C., and Tulane University School of Medicine, New Orleans, La.; captain, U. S. Air Force, two years; elected Oct. 10, 1962, by Delta Medical Society.

ROBINSON, SAMUEL LESLIE, Laurel. Born Dayton, Tenn., Oct. 27, 1929; M.D., University of Tennessee College of Medicine, Memphis, 1953; interned John Gaston Hospital, Memphis, Tenn., one year; surgery residency, University of Mississippi School of Medicine, Jackson, five years; certified by the American Board of General Surgery in 1962; captain, U. S. Air Force, two years; elected Sept. 13, 1962, by South Mississippi Medical Society.

ROSS, THEOPHILUS ERSKINE, III, Hattiesburg. Born Hattiesburg, Miss., Oct. 23, 1932; M.D., Tulane University School of Medicine, New Orleans, La., 1957; interned Charity Hospital of Louisiana. New Orleans, one year; residencies, Tulane Surgical Service, Charity Hospital of Louisiana, New Orleans, three years, and Huey P. Long Charity Hospital, Pineville, La., one year; member of the American College of Surgeons; elected Sept. 13, 1962, by South Mississippi Medical Society.

SIMMONS, WILLIAM PRESTWOOD, Arcola. Born Meridian, Miss., April 9, 1933; M.D., University of Mississippi School of Medicine, Jackson, 1961; interned Womack Army Hospital, Ft. Bragg, N. C., one year; elected Oct. 10, 1962, by Delta Medical Society.

SLEDGE, CHARLES EDWARD, Whitfield. Born Sunflower, Miss., July 28, 1934; M.D., University of Mississippi School of Medicine, Jackson, 1959; interned University of Mississippi School of Medicine, Jackson, one year; elected Oct. 2, 1962, by Central Medical Society.

TIBBS, EUGENE EDWARD, Cleveland. Born Hushpuckena, Miss., July 30, 1934; M.D., University of Tennessee College of Medicine, Memphis, 1958; interned St. Joseph's Hospital, Memphis, Tenn., one year; general surgery residency, St. Joseph's Hospital, Memphis, Tenn., three years; elected Oct. 10, 1962, by Delta Medical Society.

DEATHS

HARPER, WILLIAM STERLING, Laurel. M.D., University of Nashville Medical Department, Tenn., 1907; member of the American Medical Association; emeritus member of MSMA; a past president of the South Mississippi Medical Society; died Sept. 23, 1962, aged 80.

SNELLING, MURDOCK MURPH, Handsboro. M.D., Tulane University School of Medicine, New Orleans, La., 1925; interned Newell Sanatorium, Chattanooga, Tenn., one year; member of the American Medical Association, American College of Surgeons, International College of Surgeons, Southeastern Surgical Congress, and the American Society of Abdominal Surgeons; served as president of the Mississippi Chapter of the American College of Surgeons in 1961 and president-elect of the Mississippi Chapter of the International College of Surgeons in 1962; died Oct. 11, 1962, aged 61.

THIGPEN, HERBERT ALLEN, Bay Springs. M.D., Mississippi Medical College, Meridian, 1911; died Oct. 7, 1962, aged 88.



The President Speaking

'You Bring the Ducks'

C. P. CRENSHAW, M.D.
Collins, Mississippi

THE NEW FRONTIER has a lot to learn about America's senior citizens for whom its disciples have shed crocodile tears in the halls of Congress. Nearly everybody knows that the left-of-center weepers cried out for compulsory federal medical care despite the economic, social, and health status of the 17 million aged being something less than conducive to wet eyes and howls of anguish. Most important of all, the aged themselves recognize this.

Proponents of King-Anderson-type legislation have tried unsuccessfully to sell two myths in a buyer's market of common sense: first, that all persons over age 65 are sick, senile, and disabled and, second, that they are in serious financial difficulty. Each is a tissue of deceit and distortion.

As a social and economic group, the nation's seniors have the *highest* liquid assets of any other age group. They have the *lowest* indebtedness. Three out of four aged couples drawing Social Security own their homes, nine out of ten, *mortgage-free*. Only one out of five is sick in a degree which limits normal activity and two-thirds of those who are ill say that the indisposition has in no way interfered with their normal mode of behavior.

Our elders have substantial political savvy, too. The pollsters and statisticians found that the over-65 group preferred Republican candidates for Congress over the liberal Democrats by 56 to 44 per cent in the recent elections. On the key issue, compulsory federal medical care for the aged under Social Security, less than half—45 per cent to be exact—favored the administration proposal after its defeat last August.

The New Frontier savants may have overlooked another important consideration, too: the youngest of our senior citizens today was 35 years old when the New Deal came to power in 1932. Thus, they have already had an unforgettable lesson in big, beneficent government with the taxpayers picking up the tab.

Who wants to be guest of honor at a duck dinner when he has to bring the ducks? ★★★

Book Reviews

An Atlas of Head and Neck Surgery. By John M. Loré, Jr., M.D., Attending Surgeon, Good Samaritan Hospital, Suffern, N. Y. with illustrations by Robert Wabnitz, Director, Medical Illustration, University of Rochester Medical Center, Rochester, N. Y. 490 pages. Philadelphia: W. B. Saunders Company, 1962. $25.00.

Dr. Loré has compiled the most complete work relative to surgical technics in surgery of the head and neck. Material of primary interest to the otolaryngologist, to the plastic surgeon, and to the general surgeon with a particular interest in head and neck tumor surgery is included.

Sectional radiographic anatomy is presented in the first section of seven radiographic plates. The illustrations by Robert Wabnitz are uniformly good and clear.

Thoracic procedures such as reconstruction of the esophagus utilizing the transverse and descending colon and vascular surgery in the superior mediastinum are included because of contiguity and for the sake of completeness.

The author necessarily presents his own preferred method in the performance of each procedure. The didactic approach is helpful for the resident in training, but alternate methods of performing standard operative maneuvers and of using different suture materials are not mentioned.

The step by step approach is easy to follow in the excellent illustrations. Controversial topics cannot be considered in detail in an atlas, but a bibliography includes references to many outstanding contributions which will give the interested reader the background for the conclusions expressed in the text.

More complete atlases of head and neck tumor surgery are readily available. The unique contribution of Dr. Loré has been to include material of primary interest to otolaryngologists, plastic surgeons, and general surgeons in a single volume.

It seems safe to predict that this atlas will be widely consulted by residents in training in surgery of the head and neck and by surgeons who may wish to refresh their memories.

W. C. Shands, M.D.

Diagnostic Tests in Infants and Children, ed. 2. By Hans Behrendt, M.D., Associate in Pediatrics, New York Medical College. 617 pages. Philadelphia: Lea and Febiger, 1962. $15.00.

This worthwhile book represents an effort to consolidate in one volume most of the laboratory tests applicable to children at this time. The author has taken the systems of the body and discussed the applicable tests for each.

Rather complete discussion of the Basal Metabolic Rate and Respiratory Quotient are first, followed by tests for carbohydrate, fat, and protein metabolism that are quite comprehensive in scope. Then, electrolytes, acid-base, fluid balance, and vitamin nutrition are each condensed. The second half of the book is taken up with the testing of each system of the body—both functional and chemical evaluation—and also skin testing and serologic testing for diagnostic purposes.

In most cases, both macro and micro chemical methods are outlined, and the relative merits of each test are discussed. In addition, a lucid discussion is given of the physiologic correlations of the tests and their clinical applications. This is most helpful and should prove equally valuable to student, practitioner, or clinical laboratory personnel. The only omissions are in the areas of electroencephalography and psychological testing, and these were done purposefully.

This, then, is a book that serves well in answering the vast problems of diagnostic testing in children. It is designed for office, hospital, and laboratory use. Where further details are desirable, an exhaustive bibliography after each section provides a ready reference list. It is a most useful contribution to pediatric literature.

Noel C. Womack, Jr., M.D.

Domestic Journals

Trends in Soviet Psychiatry. Alec H. Kaplan: Mental Hygiene 46:20 (Jan.) 1962.

This interesting article is by a clinical assistant professor of psychiatry at the Washington University School of Medicine who spent three weeks in the Soviet Union in 1959 and visited Leningrad, Moscow, Stalingrad, Rostov, Socchi, Yalta, and Kiev to study Soviet Psychiatry.

He points out that psychiatry in the USSR, like all of science, is influenced by Soviet ideology where the individual is subordinate to the state and by Soviet society where individual differences are deemphasized. Hence psychological tests so universally used in the United States are rarely administered in Soviet Russia. They feel such tests overemphasize the individual.

Psychiatry is based on the foundation laid by Pavlov, who explained central nervous system function on the basis of the condition reflex though he did say in words that are strangely familiar today, "The nervous system in its entirety participates in every association of the organism."

The activity of the nervous system is held to be based on two processes: stimulation and inhibition. Every disease has two classes of symptoms: (1) disease phenomena directly resulting from the damaging factor (infection, trauma, or tumor), and (2) indirect symptoms arising not at the pathological focus, but secondary to it as defense measures. The primary symptoms are to be combated and the indirect symptoms, being defenses, are to be guarded. So in schizophrenia, for example, the central problem would be attacked by attempts at detoxification of the individual since this is felt to be the essence of the damage, but the catatonic and paranoid symptoms would be guarded because they are considered necessary as defenses.

There have been five-year plans in Soviet psychiatry just as elsewhere in the country. A crash program in one direction (schizophrenia, neuroinfections, cerebral vascular diseases and problems in organization in 1955), followed by another with quite different focus, makes for progress perhaps, but the progress seems uneven at best.

In the Soviet there are fewer beds for psychiatric patients than in the United States but many more outpatient psychiatric clinics. One out of every ten physicians is trained to be a psychiatrist and one out of every ten psychiatrists is trained to engage in medical research.

The above and a large number of equally fascinating statements on Soviet psychiatry are reported in this intriguing paper. It is so full of interesting details that I would recommend that it be read in its entirety.

OSCAR E. HUBBARD, M.D.



"Whatever you do, don't pronounce him dead here."

Saunders Company Announces Medical Writing Award

In celebration of its 75th anniversary which occurs in 1963, the W. B. Saunders Company, medical and scientific publishers, is making available $15,000 for a medical writing award.

The purpose of the grant is to provide financially for a year's leave of absence for an investigator who (1) has been doing fruitful and significant biomedical laboratory research over the past several years, and (2) would like to have time for thought and for preparation of his work in monographic form.

The award recipient will not have to agree to publish his monograph with the Saunders Company and will be free to write, instead of a book, a series of journal articles reviewing his research.

Areas of research in the medical sciences and clinical medicine which are acceptable for award consideration are extremely broad with a preference for those which could be translated into clinical usefulness within the foreseeable future. The investigator should be a resident of the Americas, but he may be doing his laboratory work outside the Western Hemisphere.

Members of the committee who will review applications will be men most likely to be knowledgeable about both the applicant and the nature of his work. The committee is made up of 20 men who are well versed and well recognized in the fields of medical science and clinical medicine.

Applications should be submitted between Jan. 1, 1963, and May 1, 1963, to Dr. Robert F. Loeb, W. B. Saunders Company, West Washington Square, Philadelphia 6, Pa. A decision on the award winner will be reached by Aug. 1, 1963. Formal presentation will be made at an award dinner in October 1963.

MSMA Board of Trustees Okays Implementation Of Keogh-Based Voluntary Retirement Program

MSMA'S Board of Trustees met Nov. 15 to consider final implementation of a voluntary retirement program for association members under Public Law 87-792, the long-sought Keogh plan.

Main item on the agenda was discussion of the joint program worked out by MSMA and the Deposit Guaranty Bank of Jackson. As conceived, this program would avail MSMA members of



MSMA and DGB chairmen and presidents look over a joint plan for a voluntary retirement program for physicians. From left to right are Dr. H. H. McClanahan, Jr., chairman, MSMA Board of Trustees; W. P. McMullan, Sr., chairman, Board of Trustees, Deposit Guaranty Bank; Nat S. Rogers, president, Deposit Guaranty Bank, and Dr. C. P. Crenshaw, MSMA president.

mass purchasing power, specialized accounting services, beneficial controls, and lower costs in assisting establishment of voluntary, tax-deferred retirement plans.

On hand to discuss the program with the board were nine DGB representatives including W. P. McMullan, Sr., chairman of the Board of Trustees; Russ M. Johnson, chairman of the Executive Committee; Nat S. Rogers, president; Horace Steele, first vice president; J. Herman Hines, executive vice president; Noel L. Mills, senior vice president and trust officer; James Allen, trust officer, Pensions and Profit Sharing Plans Division; Hon. H. Vaughan Watkins, general counsel, and Hon. Marvin Cohen, associate legal counsel.

The MSMA-Deposit Guaranty Bank voluntary retirement program for physicians was conceived early in 1959 pursuant to then-pending Keogh-type legislation. The plan was approved by MSMA's Board of Trustees on July 29, 1959, and by the House of Delegates at the 92nd Annual Session in Jackson, May 10-12, 1962.

With the passage into law of the Keogh bill on Oct. 10, 1962, implementation of the MSMA-DGB program became possible. As presently set up, the program contemplates joint and interdependent service by the bank and association in assisting MSMA members to

—Avail themselves of full tax deduction benefits,
—Enjoy advantages of mass purchase and growth potential,
—Incur no acquisition costs (a dollar invested would result in 100 cents equity),
—Have maximum possible protection from excess contribution,
—Be able to recover lawfully and without tax penalty any portion or all amounts contributed prior to the end of the tax year,
—Enjoy the advantage of cross checks on contributions through the association's records system,
—Have maximum flexible options on benefits upon retirement.

Work is presently underway to conclude legal aspects relating the new law to existing internal revenue requirements and to prepare descriptive material for the information of association members.

Keogh-type legislation, aimed at correcting some of the tax inequity suffered by the self-employed desiring to provide for their own retirement, was first introduced in 1952 during the Second Session of the 82nd Congress. H.R.'s 4371 and 4373, identical bills, were sponsored by Reps.

Eugene J. Keogh (D., N. Y.) and Daniel A. Reed (R., N. Y.). This measure died in committee.

Twelve years elapsed between this initial effort and the passage in 1962 of the Keogh-Smathers bills. Each intervening congress saw the introduction of Keogh-type legislation in some form.

Unlike the corporate principle of tax forgiveness, the Keogh concept is one of deferring taxes and reducing the peaks of the progressive income tax to spread the "costs of earning" over a greater period. As such, it is not class legislation. Public Law 87-792, the Self-Employed Individuals Tax Retirement Act of 1962, is merely an amendment to Section 401 of the Internal Revenue Code of 1954. By treating the self-employed as employees of themselves for purposes of the law and encouraging them to establish voluntary retirement programs, some of the favorable tax benefits previously available only to employees of qualified retirement plans have been extended to those who work for themselves.

Other items discussed by the Board of Trustees in its day-long meeting were technical aspects of P.L. 87-792 and management proposals in regard to the MSMA-DGB program.

Cuban Crisis Leaves 'Extendee' Dependents No ID

Retention in military service of personnel beyond expiration dates of active duty tours will pose problems for physicians and hospitals in caring for dependent wives and children under the original Medicare program. Ordered by the Secretary of Defense, the involuntary retention was made necessary by the Cuban crisis in which trained manpower was deemed essential to the national security and defense.

Dependents of extendees will ordinarily possess identification cards which, according to dates shown, will have expired since the cards are effective only during the noncareer serviceman's tour of active duty. Officials of the Office for Dependents' Medical Care at Washington are encouraging "physicians and hospitals to exercise patience and understanding during the next several months when their services are requested by dependents of these extendees."

Since a change in law and operating procedures is not possible to cover this unique and unforeseen circumstance, the statement continued, evidence of eligibility for private care must still be furnished by the dependent. Where no valid card is available, physicians are asked to observe the following alternates to usual identification processes.

In emergencies, the urgency of the case should be noted in Item 20 of the physicians' claim form together with a brief notation as to why a dependent identification is not available. Identification for purposes of payment may then be established by attaching a statement of the serviceman's commander certifying the dependent's eligibility for care in private facilities or a statement from the attending physician that he has personal knowledge of such eligibility. Copies of orders officially extending the sponsor's active duty tour are also acceptable.

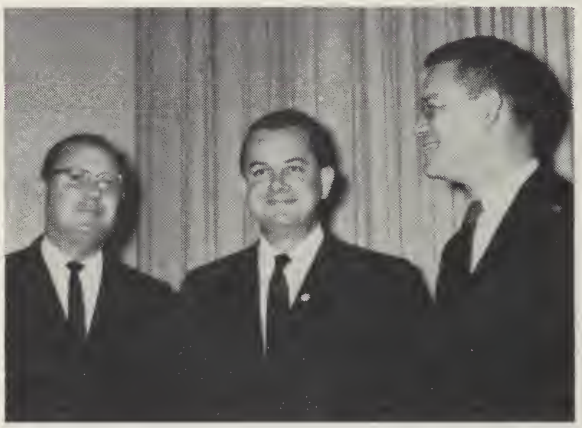
In nonemergency cases, a statement of eligibility from an official of the uniformed services authorized to issue identification cards may be included in lieu of an effective card number. The statement should contain the name, rank or grade, and capacity of the official as well as a statement that he is authorized to issue DD Form 1173, the identification card.

Dependents are being asked by the several services to explain why they do not possess valid cards in this particular situation. ODMC spokesmen say that new cards will be issued as quickly as possible to eliminate the problem.

State Surgeons Name Dr. Field President-Elect

Dr. Richard J. Field, Jr., of Centreville was named president-elect and Dr. William T. Thornton of Meridian elevated to the presidency at the Nov. 16 meeting of the Mississippi Chapter, American College of Surgeons.

Dr. Curtis P. Artz of Jackson was named secretary of the group, succeeding Edward C. Hamil-



Officers for 1961-62 of the Mississippi Division, American College of Surgeons, discuss the group's Nov. 16 meeting. From the left are Drs. William L. Thornton of Meridian, president-elect; Jack V. King of Jackson, president, and Edward C. Hamilton of Gulfport, secretary.

ton of Gulfport. Dr. Jack V. King of Jackson, 1961-62 president, presided over the meeting.

Speakers for the scientific program included Dr. C. G. Sutherland of Jackson, clinical assistant professor of obstetrics and gynecology, University of Mississippi School of Medicine; Dr.



Shown are four of the speakers who appeared before the Nov. 16 meeting of the Mississippi Division, American College of Surgeons. From the left are Drs. Robert Rowe of Dallas; Richard F. Riley of Meridian; C. G. Sutherland of Jackson, and George H. Martin of Vicksburg.

Robert Rowe, clinical professor of surgery and head of the Division of Proctology, Division of Surgery, University of Texas Southwestern Medical School; Dr. George Martin, The Street Clinic, Vicksburg; Dr. Richard F. Riley, clinical instructor in surgery, University of Mississippi School of Medicine, and Dr. Ben Eiseman, professor and chairman, Department of Surgery, University of Kentucky Medical Center.

Topics of discussion were "Carcinoma of the Cervix—Treatment and Complications," Dr. Sutherland; "Current Management of Carcinoma of the Low Sigmoid and Rectum," Dr. Rowe; "The Treatment of Duodenal Ulcer by Vagotomy, Antrectomy and Billroth I Anastomosis," Dr. Martin; "Arterial Surgery in the Small Hospital," Dr. Riley; "Portal Hypertension," Dr. Eiseman.

The program was concluded with a panel discussion moderated by Dr. Curtis P. Artz, associate professor of surgery, University of Mississippi School of Medicine. Panelists were Dr. Rowe, Dr. Eiseman, and Dr. James D. Hardy, professor and chairman, Department of Surgery, University of Mississippi School of Medicine.

Featured speaker for the evening banquet was Dr. James Royals, clinical assistant professor of obstetrics and gynecology, University of Mississippi School of Medicine, who talked on "Cruising the Islands by Private Plane."

Radiation Authorities Convene in Jackson

Over a hundred nuclear radiation authorities from 17 states convened in Jackson Nov. 13 and 14 for the Southern Regional Conference on Radiation Control.

Under discussion during the two-day meet was a uniform regulatory and nuclear development program for the states. Specific consideration was given to regulations and enabling legislation for the transfer of licensing authority for radioactive materials from the Atomic Energy Commission to qualified states. Earlier this year, Mississippi became the second state to receive such authority. Kentucky was the first.

Through the transfer of authority, the state controls licensure and surveillance of users of radioactive materials. In Mississippi the responsible agency is the State Board of Health.

Program participants for the conference included state officials and legislators from the 17 states, representatives of the several state departments of health, staff personnel from pertinent state agencies, members of the Public Health Service and the Atomic Energy Commission, and officers of the Society of Nuclear Medicine.

Representing Mississippi on the program were C. A. McLeod, staff engineer, Mississippi Industrial and Technological Research Commission and Robert R. Rester, supervisor, Radiological Health, Mississippi State Board of Health. Dr. A. L. Gray, state health officer, welcomed the group to Mississippi.

Awards To Be Presented For Sterility Research

Three awards will be presented at the 1963 annual meeting of the American Society for the Study of Sterility, according to Dr. Michael Newton of Jackson, chairman of the Awards Committee.

The session is scheduled for April 19, 20, and 21, 1963, in New York.

The Ortho Medal and the sum of $1,000 will be awarded to a researcher selected by the committee on the basis of his outstanding contributions in fertility and sterility or related subjects during the years 1960, 1961, and 1962. The money is to be used for expenses in visiting medical and research centers.

The Rubin Award, consisting of a certificate of merit and $250, will be awarded to the author or authors whose paper is deemed by the Awards Committee to be the most significant contribution

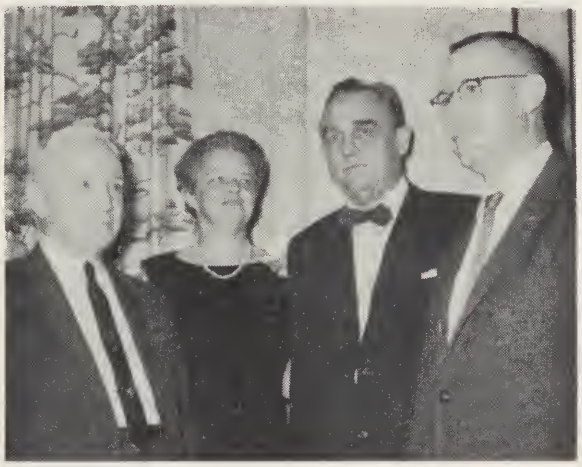
among those appearing in the society's journal *Fertility and Sterility* during the year 1962.

The Carl G. Hartman Grant-In-Aid in the amount of $500 will be awarded to the most meritorious research project in fertility and sterility or related subjects, as chosen by the Awards Committee. Applications for this grant-in-aid should be sent to Dr. Newton at 2500 North State Street, Jackson 6, Miss., before March 1, 1963.

Applications should be accompanied by an original and one carbon copy of an outline of the proposed research. This should be brief but sufficiently detailed for the committee to evaluate.

Blindness Prevention Society Names Officers

Members of the Mississippi Society for the Prevention of Blindness met Oct. 18 in Jackson for their 1962 annual session. Officers named were W. P. Woolley, president; Mrs. Sales T. O'Neal,



Principals in the Oct. 18 meeting of the Mississippi Society for the Prevention of Blindness discuss the group's program. From the left are Major W. E. Holcomb, board member; Elizabeth Marvin, field representative, National Society for the Prevention of Blindness; Dr. Van Dyke Hagaman and Dr. Samuel B. Johnson, members of the Medical Advisory Committee.

Mrs. Ruth Armstrong, Jessie Lynn Ruff, vice president; Ferris Cotter, secretary, and C. B. Boone, treasurer. All are from Jackson.

Physicians appointed to the society's Medical Advisory Committee by the Mississippi Eye, Ear, Nose, and Throat Association include Drs. Van Dyke Hagaman, John J. White, Samuel B. Johnson, all of Jackson; Joseph B. Rogers of Oxford, and Earl W. Green of Hattiesburg.

Special guest for the meeting was Elizabeth Marvin, field representative of the National Society for the Prevention of Blindness, who discussed the national program. The local society it was reported has begun a campaign of public education concerning the prevention of blindness and a preschool vision screening program has been carried on with the expectation that this will be enlarged both in Hinds County and in other parts of the state.

Board members of the state group are Mary Ann Elkin, Mary Walker Mahon, Dr. Helen Bernfield, Mrs. Robert Adsit, Mrs. J. Dudley Buford, Mrs. C. B. Rutledge, Mrs. W. C. Shands, Mrs. Lois Stone, Senator Hayden Campbell, Jim L. Carballo, Dr. Harry S. Kirshman, J. I. Rankin, Carl Wilson, Rev. John Scanlon, Dr. A. L. Gray, Dr. N. C. Knight, Dr. Van Dyke Hagaman, Dr. John J. White, Dr. Joseph B. Miller, all of Jackson; Mrs. Jean McClellan of Lexington; Mrs. Arlone O'Shea of Charleston, and Delbert Hoseman of Vicksburg.

Dr. Guyton Awarded AAMC Emeritus Membership

Dr. Billy S. Guyton of Oxford, dean emeritus of the University of Mississippi School of Medicine, has been awarded emeritus membership in the Association of American Medical Colleges.

He was voted to the honor with eight other eminent medical educators at the association's annual meeting in Los Angeles.

"Unusual capacity and interest in dealing with the problems and in contributing to the progress of medical education," is the qualification for AAMC emeritus status, according to Dr. Robert Q. Marston, present dean and director of the University School of Medicine.

Dr. Guyton accepted the deanship in 1935, two years after the AMA Council on Medical Education and Hospitals removed the institution's Class A rating, the nomination statement points out. The school had been placed on probation because of political intervention and drastic budget cuts. Under Dr. Guyton's leadership, accreditation was restored by the 1937-38 school session. Dr. Guyton has continued to contribute his support for the medical school since his resignation as dean in 1944.

Including the nine just elected, only 24 men hold emeritus membership in the Association of American Medical Colleges, the official organization representing the accredited medical schools of the United States and its possessions.

University Sponsors Pre-Med Day



A new attendance record was set at the Oct. 17 Pre-Med Day at the University of Mississippi School of Medicine. Over three hundred students from 18 junior and senior colleges came to rounds and demonstrations in all departments. Here, heart pump technician Helen Carr talks about open heart surgery techniques.

Southern Circuit Courses Slated for January

An expanded program of Circuit Courses, presented by the University of Mississippi School of Medicine for practicing physicians, is scheduled to begin in Gulfport, Laurel, and Hattiesburg the week of Jan. 16, 1963.

For the fourth consecutive year, teams of university lecturers have been scheduled for three weekly sessions in north, south, and central Mississippi. The northern circuit was held in October with the central circuit set for March. In all, 21 sessions will be held, bringing a total of 10 lecturers on different medical problems to each city.

Gulfport meetings are slated for 6:30 p.m. on Jan. 16, 23, and 30 at Memorial Hospital. University faculty members will lecture in Laurel at 2:00 p.m. on Jan. 17, 24, and 31 at the Jones County Community Hospital and in Hattiesburg at 6:30 p.m. on Jan. 17, 24, and 31 at the Methodist Hospital. Local chairmen are Dr. C. D. Taylor, Jr., of Pass Christian, Dr. Ferd M. Shell of Laurel, and Dr. A. T. Tatum of Hattiesburg.

On the central circuit, the university lecturers will speak in Natchez on March 6, 13, and 20 at 7:30 p.m. in Jefferson Davis Memorial Hospital. Dr. Philip K. Springer is the chairman. The Meridian meetings will be at Matty Hersee Hospital at 2:00 p.m. on March 7, 14, and 21. Dr. Guy T. Vise is local chairman.

Subject matter for the courses includes current medical information in surgery, pediatrics, psychiatry, medicine, and obstetrics-gynecology. The Mississippi State Medical Association and the Mississippi Academy of General Practice cooperate in offering the postgraduate courses to doctors around the state.

Selection of host cities is based on requests from physicians for the programs, as well as professional population, available meeting facilities, and accessibility from neighboring communities.

For the fourth straight year, the courses are underwritten by an educational grant from E. R. Squibb and Sons. No tuition fee will be charged and physicians attending will receive 11 hours of credit toward the MAGP category 1 postgraduate requirements.

Saunders Announces Recent Publications

W. B. Saunders Company features the following recent books in their full page advertisement appearing elsewhere in this issue:

WARREN—SURGERY

A valuable new volume emphasizing today's principles of surgical disease rather than mere mechanical techniques

SCHMEISSER—A CLINICAL MANUAL OF ORTHOPEDIC TRACTION TECHNIQUES

Clearly describes and illustrates the application and advantages of traction in the management of common fractures

WECHSLER—CLINICAL NEUROLOGY

Helpful information on the diagnosis and management of virtually every clinical neurologic problem met in daily practice

Dr. Crenshaw Addresses Licensed Practical Nurses

The whole of medicine is creating new problems as it solves others, Dr. C. P. Crenshaw, MSMA president, told the Mississippi Federation of Licensed Practical Nurses, Inc., at the group's Nov. 6 annual dinner.

Speaking on the subject, "The Shape of Change," Dr. Crenshaw said that two primary problems confront modern medical practice. One, he said, is that medical care has become more elaborate, requiring more and better trained peo-

ple to render it, and the other is that there are more people to care for in the latter years of life.

Dr. Crenshaw said that the several health professions, the states, and the vast mechanism of voluntarism can and will conquer these problems. He challenged the nurses to upgrade their licensure standards and to continue training after entering practice in order to meet the demands of modern medical care.

The annual dinner was a featured item on the agenda of the federation's seventh annual convention which met Nov. 5-7 in Jackson. The convention theme was "Progress through Cooperation."

Dr. Suess Joins UMC Psychiatry Department

Dr. James F. Suess has been named assistant professor in the Department of Psychiatry, University of Mississippi School of Medicine.

Dr. Suess comes to the university from Pennsylvania where he was clinical director of Warren State Hospital. He completed his residency at Warren State Hospital and took postgraduate work in psychiatry at the University of Pittsburgh, the University of Pennsylvania, and Columbia University. He is a graduate of Northwestern University where he received both his B.A. and his M.D. degrees.

Adolescent psychiatry and psychotherapy teaching methods are Dr. Suess's special research interests. He has published five research papers and is a fellow of the American Psychiatric Association.

General Hospitalization Said Feasible for Alcoholics

Alcoholics can be treated in the same hospital areas as other patients, with designated and trained staff, Dr. Jack D. Gordon, assistant chief of medicine, Mount Zion Hospital, San Francisco, told hospital administrators and personnel attending the first Institute on Hospitalization at Mississippi State Hospital, Whitfield, on October 25.

Medical director of a study on hospitalization of the alcoholic, Dr. Gordon called general hospitalization feasible and desirable.

Dr. Vernelle Fox, medical director of the Georgian Clinic, Atlanta, discussed medical treatment and stated that the recovery of the alcoholic is better than in many chronic illnesses even though slow. The physician looks at alcoholism as a chronic disease and accepts the fact that the patient is ill and desirous of getting well.

Appearing on the program were: Dr. W. L. Jaquith, Mississippi State Hospital director; Dr. A. L. Gray, state health officer; E. L. King, hospital administrator, Tupelo; William F. Winter, president, Mississippi Association for Mental Health, and Gene A. Wilkinson, chairman, Jackson Council on Alcoholism.



Dr. Vernelle Fox of Atlanta, Ga. right, and Dr. Jack D. Gordon of San Francisco, Calif., were featured speakers for a one day institute on admission and care of alcoholics in general hospitals. The institute was conducted Oct. 25 at the Mississippi State Hospital, Whitfield.

The institute was sponsored by the State Hospital, the Mississippi State Board of Health, the Hospital Association, Mississippi Association for Mental Health, and the Jackson Council on Alcoholism.

Registration for the meeting totalled 175. Hospitals represented were as follows: University Medical Center, Jackson; Hancock General Hospital, Bay St. Louis; Leake County Memorial Hospital, Carthage; Covington County Hospital, Collins; Marion County General Hospital, Charleston; Memorial Hospital, Forest; Greenwood Leflore Hospital, Greenwood; Veterans Administration Hospital, Jackson; Matty Hersee Hospital, Meridian; St. Joseph's Hospital, Meridian; St. Dominic's Hospital, Jackson; Jefferson Davis County Hospital, Prentiss; Natchez General Hospital, Natchez; Holmes County Community Hospital, Lexington; Ivy Memorial Hospital, West Point; Mercy Hospital-Street Memorial Hospital, Vicksburg; Keesler Air Force Base, Biloxi.

Faculty of Ten Conducts University Trauma Seminar

A University of Virginia orthopedic surgeon headed a faculty of ten for a Nov. 30 trauma seminar sponsored by the University of Mississippi School of Medicine.

Dr. Charles J. Frankel, associate professor of orthopedic surgery at the University of Virginia Medical School, spoke on medico-legal aspects of medicine.

Faculty members from the University of Mississippi School of Medicine discussed traumatic injuries to the face, hands, abdomen, spinal cord, and genitourinary tract. Fluid and blood replacement in the injured, trauma of burns, management of trauma in a community hospital and pediatric management of the injured were reviewed.

Lecturers from the Department of Surgery were Dr. Temple C. Ainsworth, clinical associate professor; Dr. Curtis P. Artz, professor; Dr. William O. Barnett, clinical assistant professor; Dr. James C. Bass, Jr., clinical instructor; Dr. Paul S. Derian, associate professor; Dr. James H. Hendrix, clinical assistant professor; Dr. William A. Neely, associate professor; and Dr. J. Darrell Smith, associate professor of pediatrics, and Dr. Julian Youmans, associate professor of neurosurgery.

Blood Banking Committee Holds Meet



MSMA's Committee on Blood and Blood Banking took time out from their Oct. 18 meeting for the JOURNAL MSMA *camera. From the left seated are Drs. Kenneth M. Heard and Catherine G. Goetz. Standing are Drs. Thomas F. Puckett, Charles B. Mitchell, Jr., and Richard H. Fenstermacher.*

New Orleans Assembly Sets Annual Meet for March

The 26th annual meeting of the New Orleans Graduate Medical Assembly has been scheduled for March 4, 5, 6 and 7, 1963. Headquarters will be the Roosevelt Hotel.

Nineteen outstanding guest speakers will discuss topics of interest to both specialists and general practitioners. The program will include 55 discussions on many topics of current medical interest, in addition to clinicopathologic conferences, symposia, medical motion pictures, round-table luncheons, and technical exhibits.

Following the meeting in New Orleans, arrangements have been made for a clinical tour to Mexico leaving New Orleans via air on March 8. The itinerary includes visits to Mexico City, Cuernavaca, Taxco, and Acapulco, returning on March 23. Optional extensions in Mexico may be arranged.

Details of the New Orleans meeting and the tour are available at the office of the assembly, Room 105, 1430 Tulane Avenue, New Orleans 12, La.

PERSONALS

J. A. GRAVES of Biloxi has been named secretary of the newly-organized Mississippi School Boards Association. The group is made up of school board members in each of Mississippi's 82 counties and the municipal separate school districts.

VERNER S. HOLMES of McComb, vice president of the Board of Trustees for Institutions of Higher Learning, gave the dedicatory address for the opening of two new buildings at the Mississippi State College for Women. Buildings dedicated were Kincannon Dormitory and the Lenore Woollard Carrier Recreation Lodge.

A. D. HURT of Corinth has been appointed to the Magnolia Hospital Board of Trustees. The appointment was made by the Corinth Board of Mayor and Aldermen.

S. S. KETY of Picayune has been elected as one of six national vice presidents of the 40 and 8 Society of the American Legion. A veteran of the Army in World War II, Dr. Kety has been in the 40 and 8 for the past 12 years. He has held all local and state offices including state commander

in 1957 and national executive committeeman in 1958.

ALFRED J. MESSINA of Vicksburg has been awarded a Certificate of Appreciation by the Selective Service in recognition of 20 years' service as medical advisor for Local Board No. 81, Vicksburg and Warren County.

F. C. MINKLER of Pascagoula was named president of the Gulf Coast Clinical Society at the group's October meeting. Dr. Karl Horn of Moss Point was named secretary-treasurer. The society is composed of physicians from Pensacola, Mobile, and the Gulf Coast.

RICHARD E. SCHUSTER and CURTIS D. ROBERTS of Brandon have announced the association of WILLIAM F. TILLMAN in the Brandon Clinic. Dr. Tillman is a native of Clinton and graduate of the University of Mississippi School of Medicine. He served his internship at Carraway Memorial Hospital in Birmingham, Ala.

HENRY M. WADSWORTH of Hernando has announced the association of his son, HENRY M. WADSWORTH, JR. Dr. Wadsworth has recently completed his internship at the City of Memphis Hospital. He received his medical degree from the University of Tennessee Medical School.

JOHN DAVID WOFFORD has announced the removal of his office from Jackson to Greenwood.

LOUIS J. WISE, JR. of Jackson has been certified as a diplomate by the American Board of Dermatology.

JULIAN R. YOUMANS has been elected to membership in the American Association for Surgery of Trauma.

State Morbidity Reported Through Nov. 2

The Mississippi State Board of Health reports the following occurrence of morbidity for 1962 through the 44th week of the year, ending Nov. 2, 1962. Case totals reported are shown opposite the disease condition.

Tuberculosis, pul.	573
Tuberculosis, O.F.	38
Anthrax	1
Typhoid fever	6
Salmonella infections	23
Salmonella food poisoning	3
Brucellosis	2
Dysentery	
Amebic	42
Bacillary	53
Dysentery, NOS	2
Food poisoning, NOS	4
Septicemia, Strep.	4
Septicemia, Staph.	81
Leptospirosis	2
Toxoplasmosis	1
Staphylococcus infection	7
Poliomyelitis	8
Diphtheria	7
Meningococcus infection	
Meningitis	15
Meningococcemia	3
Meningitis, O.F.	71
Other complications of smallpox vaccination	3
Polyneuritis	2
Tularemia	2
Tetanus	12
Encephalitis, infectious	25
Mononucleosis, infectious	69
Trichinosis	1
Diarrhea of newborn	9
Hepatitis, infectious	756
Hepatitis, serum	1
Helminthic infections	
Hookworm	977
Ascariasis	327
Strongyloides	46
Cryptococcosis	2
Moniliasis	1
Actinomycosis	2
Other cestode infest. (HN)	2
Histoplasmosis	29
Other fungus infections	1
Streptococcus infections	
Scarlet fever	249
Strep throat	2,893
Malaria	1
Myelitis	3
Rheumatic heart	6
Rheumatic fever	3
Acute Glomerulonephritis	11
Puerperal sepsis	2
Pertussis	108
Measles	2,739
Cowpox (vaccina sine vaccination)	2
Chickenpox	754
Mumps	404
Influenza	11,363
Gonorrhea	4,524
Syphilis	
Early	192
Late	291



VOLUME III

January-December, 1962

- EDITOR
  WILLIAM M. DABNEY, M.D.
- ASSOCIATE EDITORS
  DEWITT HAMRICK, M.D.
  GEORGE H. MARTIN, M.D.
- MANAGING EDITOR
  ROWLAND B. KENNEDY
- EDITORIAL ASSISTANT
  BETTY M. SADLER
- PUBLICATIONS COMMITTEE
  LAWRENCE W. LONG, M.D.
  Chairman

  B. B. O'MARA, M.D.
  WILLIAM E. LOTTERHOS, M.D.
  and the Editors

- THE ASSOCIATION
  C. P. CRENSHAW, M.D.
  President

  JOHN G. ARCHER, M.D.
  President-elect

  C. G. SUTHERLAND, M.D.
  Secretary-Treasurer

  B. B. O'MARA, M.D.
  Speaker

  HOWARD A. NELSON, M.D.
  Vice Speaker

  ROWLAND B. KENNEDY
  Executive Secretary

  CHARLES L. MATHEWS
  Assistant Executive Secretary

Mississippi State Medical Association
735 Riverside Drive
Jackson

The JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION is owned and published by the Mississippi State Medical Association, founded December 15, 1856. Editorial, executive, and business offices, 735 Riverside Drive, Jackson, Mississippi. Office of publication, 1201-05 Bluff Street, Fulton, Missouri. Copyright 1962, Mississippi State Medical Association.

SUBJECT INDEX

The letters used to explain in which department the matter indexed appears are as follows: "E," Editorial; "N," News; "L," Letters to the Editor; "BR," Book Review; "JR," Journal Review; the asterisk (*) indicates an original article in the JOURNAL, and the author's name follows the entry in brackets. "Deaths," "Personals," and "New Members" are indexed under the letters "D," "P," and "M" respectively.

Matter pertaining to MSMA is indexed under "Mississippi State Medical Association." For the author index, see page 578.

A

Abortion
infected [Plauche] *99
Addiction: See Drug Addiction
Aging: See Social Security, medical care
Alcoholism: See also Southeastern School of Alcohol Studies
education of teenagers, 338-N
institute on hospitalization, 568-N
Alford, John M.
self-made sailboat, 194-N
Alpha Epsilon Delta
Millsaps College Chapter, outstanding alumnus, 236-N
American Academy of General Practice
Mobile Chapter, symposium, 43-N
American Association of Blood Banks
1962 meeting, 482-N
American Board of Obstetrics and Gynecology
examination schedules, 126-N, 276-N, 483-N
American Cancer Society
Mississippi Division—1962 annual meeting, 445-N, 528-N; 1962 fund raising campaign, 232-N; professional seminar, 483-N, 531-N
American College of Chest Physicians
1962 annual meeting, 292-N
Mississippi Chapter—May meeting, 288-N; November meeting, 534-N
Southern Chapter—Watts Webb secretary, 46-N
American College of Obstetricians and Gynecologists
booklet on gynecology, 87-N
new fellows, 393-N
American College of Surgeons
Memphis sectional meet, 40-N
Mississippi Chapter—May meeting, 288-N; 1961 annual meeting, 81-N; 1962 annual meeting—(officers and news report) 534-N; (program preview) 564-N
American Diabetes Association
detection drive, 533-N
American Heart Association
anticoagulant therapy guide, 82-N
Fourth World Congress of Cardiology, 92-N
medical education research program, 48-N
1962 annual meeting, 47-N
American Hospital Association
position on medical care for the aged [Kennedy] 121-E
American Medical Association
Committee on Nursing, objectives, 524-N
Council on National Security—doctor draft information, 294-N; 13th County Medical Societies Conference on Disaster Medical Care, 484-N
dues raise, 444-N
Education and Research Foundation—loan program, 533-N; Mississippi campaign, 527-N; MSMA Committee, 440-N; UMC share for 1961-62, 193-N
film catalog, 442-N
House of Delegates, urges expansion of recruitment programs, 82-N
income replacement program [Kennedy] 436-E
lobbying expenditures [Kennedy] 224-E
Medicolegal Symposium, 442-N
1962 annual meeting—new officers, 389-N; Nuclear Medicine Seminar, 289-N; Research Forum, 290-N
1962 clinical meet—(presentation of annual reports) [Kennedy] 558-E; (program preview) 529-N
poll on medical advances, 84-N
specialty designations, revision, 41-N
American Rhinologic Society
1962 annual meeting, 526-N
American Society for the Study of Sterility
1963 awards, 565-N
American Thoracic Society
1962 annual meeting, 41-N
Anesthesia
evaluation of poor risk patient [Carnes & Fabian] *447
local, in major and minor surgery [Glover] *49
Anticoagulants
therapy guide, 82-N
Antihypertensive Agents
double-blind study [Grenfell, et al.] *93
Aorta
coarctation, review with cases [Webb & Hardy] *341
Appendicitis
acute, in children [Longino] *497
Arthritis: See also Arthritis and Rheumatism Foundation
fads and fancies in treatment [Cecil] *345
Arthritis and Rheumatism Foundation
Hattiesburg, Miss., underwriters receive award, 528-N
Mississippi Chapter—1962 annual meeting, 444-N, 530-N; UMC Arthritis Seminar, 81-N
Arthritis, Rheumatoid
use of steroids [Clark] *535
Association of American Medical Colleges
Billy S. Guyton emeritus member, 566-N
Association of American Physicians and Surgeons
1962 state essay contest, winners, 293-N
Augusta Postgraduate Medical Assembly
1962 meet, 131-N
Automobiles
accidents, chest trauma from [Pace] *540
crash injury research [Kennedy] 385-E
seat belts—Ernie Kovacs' death [Kennedy] 122-E; state board of health campaign wins award, 338-N
Aycock, William Jasper
new member, Fifty Year Club, 127-N

B

Bilirubin
national survey, 335-N
Bionics
role in modern technology [Kennedy] 122-E
Blindness: See Mississippi Society for the Prevention of Blindness
sudden, etiology [Mounger] *66
Blood Banks: See American Association of Blood Banks, South Central Association of Blood Banks
Blood Transfusion
directory of facilities, 86-N
Blue Cross-Blue Shield: See Insurance, Health
Books and Book Reviews
Adler, F. H.: Textbook of Ophthalmology, 438
Adriani, J.: Appraisal of Current Concepts in Anesthesiology, 438
AMA Council on Drugs: New and Nonofficial Drugs, 326
Behrendt, H.: Diagnostic Tests in Infants and Children, 438, 561
Blechschmidt, E.: The Stages of Human Development Before Birth, 118
Boyd, W.: Introduction to the Study of Disease, 327
Buxton, C. L.: A Study of Psychophysical Methods of Relief of Childbirth Pain, 327, 523
Committee on Dietetics, Mayo Clinic: Mayo Clinic Diet Manual, 73
Conn, H. F.: Current Therapy—1961, 275
Conn, H. F.: Current Therapy—1962, 327
Conwell, H. E., and Reynolds, F. C.: Key and Conwell's Management of Fractures, Dislocations, and Sprains, 115

Corday, E., and Irving, D. W.: Disturbances of Heart Rate, Rhythm, and Conduction, 118
Dripps, R. D., et al.: Introduction to Anesthesia: The Principles of Safe Practice, 189
Engel, G. L.: Psychological Development in Health and Disease, 438
Ferguson, F. C.: Drug Therapy, 326
Flippin, H. F.: Medical State Board Questions and Answers, 326
Florey, H.: General Pathology, 327, 477
Fluhmann, F.: The Cervix Uteri and Its Diseases, 116
Glenn, F.: Problems in Surgery, 118, 327
Goldberger, E.: A Primer of Water, Electrolyte and Acid-Base Syndromes, 326
Goth, A.: Medical Pharmacology: Principles and Concepts, 387
Graham, J. B., et al.: Carcinoma of the Cervix, 118, 387
Green, M., and Richmond, J. B.: Interpretation of Signs and Symptoms in Different Age Periods: Pediatric Diagnosis, 438
Gregory, I.: Psychiatry: Biological and Social, 118
Hamilton, J. A.: Postpartum Psychiatric Problems, 118, 477
Levinson, S. A., and MacFate, R. P.: Clinical Laboratory Diagnosis, 118
Lisser, H., and Escamilla, R. F.: Atlas of Clinical Endocrinology, 118
Loré, J. M.: An Atlas of Head and Neck Surgery, 438, 561
Major, R. H., and Delp, M. H.: Physical Diagnosis, 327
O'Donnell, W. E., and Venet, L.: Early Detection and Diagnosis of Cancer, 327, 437
O'Donoghue, D. H.: Treatment of Injuries to Athletes, 327
Owen, J. K.: Modern Concepts of Hospital Administration, 327
Perez-Tamayo, R.: Mechanisms of Disease: An Introduction to Pathology, 118, 325
Reid, D. E.: A Textbook of Obstetrics, 327, 437
Rubin, E. H., and Rubin, M.: Thoracic Diseases, 227
Simonson, E.: Differentiation Between Normal and Abnormal in Electrocardiography, 118
Tenney, B., and Little, B.: Clinical Obstetrics, 118, 523
US Army Medical Department: Internal Medicine in World War II: Activities of Medical Consultants, 327
Wells, B. B.: Clinical Pathology, 327
White, A. G.: Clinical Disturbances of Renal Function, 189
Williams, R. H.: Textbook of Endocrinology, 118

Brain
defects, in infants, transillumination in diagnosis, 83-N

Breast Neoplasms
carcinoma, management [Hickman] *6

Burgess, Annette Smith
death, 446-N

C

Cancer: See Neoplasms
Carcinoma
breast, management [Hickman] *6
in situ, evolution and management [Marascalco] *249
Carotid Arteries
occlusive disease, surgical treatment [Murphey] *1
Cartoons
husband-wife cartoonist team [JMSMA feature] *113
Cells: See Cytology
Cerebral Palsy: See Mississippi Hospital School for Cerebral Palsy
Cesarean Section
postmortem, maternal mortality case study report [Wiener] *207
postmortem, review and case report [Ellis] *502
Chest: See American College of Chest Physicians
exsanguinating wound following shallow dive [Martinolich & Hammond] *470
pain, differential diagnosis [Van Landingham] *453
trauma, as result of automobile accidents [Pace] *540
Children
acute appendicitis in [Longino] *497
handicapped—conference on, 90-N; state medical correction program, 80-N
Chiropractic
licensure, Louisiana, bill defeated, 336-N
licensure, Mississippi—MSMA testimony against [Lotterhos & Long] *151; bill defeated, 193-N
licensure, New York, bill introduced, 234-N
public health hoax number one [Lotterhos] 75-E
status in Germany [Kennedy] 224-E
Cholecystitis
acute [Kisner] *209
Cholesterol
national survey, 87-N
Cigarettes: See Smoking
Clinicopathological Conferences
XXIV—25 (University of Mississippi)
XXV—69 (Baptist Hospital)
XXVI—109 (Baptist Hospital)
XXVII—145 (University of Mississippi)
XXVIII—213 (University of Mississippi)
XXIX—260 (University of Mississippi)
XXX—314 (Baptist Hospital)
XXXI—356 (Baptist Hospital)
XXXII—425 (Baptist Hospital)
XXXIII—462 (Mercy Hospital)
XXXIV—505 (Baptist Hospital)
XXXV—548 (University of Mississippi)

College of American Pathologists
national bilirubin survey, 335-N
national cholesterol survey, 87-N
Continental Casualty Company: See Insurance, Health
Cornea
ulcers, traumatic [Wesson] *13
Crenshaw, C. P.
president, MSMA, 292-N
Crippled: See Handicapped
Culpepper, J. P., Jr.
vice president of AMA, 389-N
Culpepper, J. P., III
ship's surgeon for Panama cruise, 235-N
Cumulated Index Medicus
AMA and National Library of Medicine publish, 131-N
Cystic Fibrosis Clinic
opened at UMC, 444-N
Cytology
malignant cells, cytoplasmic fluorescence [Gammill, et al.] *492

D

Deafness
treatment, current surgical technics [Lewis] *133
Deaths
Alford, Thomas Cleveland, 78
Backstrom, John Garner, 48
Brimson, James Ashton, 327
Brown, George Lemon, 436
Brown, Leonidas Sutton, 393
Butler, Edwin Mouzon, 436
Caraway, Margaret Roe, 123
Creekmore, Virgil Marvin, 78
Davis, Ralph Butler, 436
Gaudet, Lucien Sydney, 436
Gully, Champ Mitchel, 78
Harper, William Sterling, 559
Harrison, Charles Henry, Sr., 226
Hickman, Walter Bernard, 226
Hooper, Sam Jones, 273
Land, George William, 123
Leonard, Henry Oscar, Jr., 48
Lewis, Clyde James, 78
Lovorn, Everett, 123
McNease, Robert Reece, 198
Melvin, Edmund Arthur, 524
Montgomery, William Eugene, 198
Price, Benjamin Joseph, 393
Sabatini, Silvio Amedeo, 226
Sharon, James Philip, 123
Shields, Joseph Dunbar, 198
Smith, Alvah Purser, 48
Snelling, Murdock Murph, 559
Spaulding, Roy Frank, 198
Synnott, James Patrick, 226
Thigpen, Herbert Allen, 559
Weaver, Nathaniel Rush, 226
Welch, George Boyd, 393
Wilder, Luke, 198
Windham, James Herbert, 123
Young, William Allan, 226
Delivery: See Cesarean Section
Diabetes
detection drive, 533-N
Disabled: See Handicapped
Doodling
at MSMA meetings [Sadler] *514
Drug Addiction
AMA and National Research Council statement [Kennedy] 329-E
Drugs
emergency data center, 130-N

Duodenal Ulcer
a more physiologic operation [Martin] 217-E

E

Eastland, James O.
congressional leadership [Lotterhos] 474-E
Education, Medical: See Students, Medical
Ewing, M. Q.
forced recess from MSMA duties, 83-N

F

Films
AMA catalog, 442-N
Atherosclerosis and the Role of Estrogens, 527-N
Hemostasis and the Effect of Estrogens, 527-N
The Menopause and the Role of Estrogens, 527-N
Radiation: Physician and Patient, 332-N
Fistula: See Urinary Fistula
Fleming, T. Y.
new member, Fifty Year Club, 442-N
Flying Physicians Association
Mississippi Chapter, officers, 288-N
Fluorescence
cytoplasmic, of malignant cells [Gammill, et al.] *492
Food
"curative" honey, FDA seizure, 45-N
Food and Drug Administration
"curative" honey seized, 45-N
diagnostic machine seized, 390-N
jequirity bean necklaces embargoed [Kennedy] 520-E
Fourth World Cardiology Congress
papers invited, 92-N
Fractures
hip, management [Rush & Rush] *61

G

Gallbladder: See Cholecystitis
Gamma Globulin
prophylaxis in hepatitis [Blakey] *349
Gastrointestinal: See Hemorrhage, Gastrointestinal
General Practice: See American Academy of General Practice, Mississippi Academy of General Practice
Geriatrics: See National Geriatrics Society
Government
the physician's part [Dabney] 473-E
Gulf Coast Clinical Society
symposium on clinical medicine and surgery, 43-N
Guyton, Billy Sylvester
emeritus membership in Association of American Medical Colleges, 566-N
Ole Miss medical building named for, 389-N
Gynecology: See American College of Obstetricians and Gynecologists

H

Hamrick, Dewitt
attends Mississippi College reunion, 337-N
Hand
traumatic wounds, closure of [Davis] *105
Handicapped
children, conference on, 90-N
state correction program, 80-N
Hardy, James D.
receives Philadelphia County (Pa.) Medical Society award, 530-N
Health Insurance Institute
1961 benefit increase by state, 293-N
1961 hospital benefits, 276-N
1961 polio benefits, 91-N
Heart: See American Heart Association; Fourth World Congress of Cardiology
Heart Diseases
prevention, 233-N
Hemorrhage, Gastrointestinal
upper, management [Rossett] *138
Hepatitis
gamma globulin as prophylaxis [Blakey] *349
Hernia: See Omphalocele
Hinds County Hospital
preliminary plans approved, 483-N
Hip
fracture, management [Rush & Rush] *61
Histoplasmosis
review with case reports [McCay] *102
Hospitals: See Mississippi Association of Hospital Governing Boards
insurance benefits in 1961, 276-N
reimbursement, state commission sets up program, 532-N
utilization, the phony case against [Kennedy] 577-E
Hughes, James Herman
new member, Fifty Year Club, 44-N
Hypertension: See Antihypertensive Agents

I

Infant
brain defects, transillumination in diagnosis, 83-N
Infant Mortality
perinatal, conferences on [Watson & Mosey] *58
Infection: See specific organ, region, or agent
Influenza
Asian, epidemic in US predicted, 475-N
Injuries: See Wounds and Injuries
Institute for Scientific Information
current services, 338-N
Insurance
AMA income replacement program [Kennedy] 436-E
Insurance, Health: See also Social Security, Medical Care; Workmen's Compensation
Blue Cross-Blue Shield, state program—four physicians re-elected to board, 236-N; membership, 444-N
Continental Casualty Company, golden 65 program, 337-N
1961 benefits increase, 293-N
1961 polio benefits, 91-N
Insurance, Hospitalization
1961 benefits, 276-N
International Business Machines Corporation
employee loans for fallout shelters, 92-N
International College of Surgeons
Lawrence W. Long named section secretary, 481-N
Thirteenth Biennial International Congress, 394-N
Intestinal Obstruction
small bowel, management [Barnett] *295
Isquith, Eli A.
death, 48-N

J

Joint Blood Council
directory of blood transfusion facilities, 86-N
Journal Reviews
Beck, A. T., et al.: An Inventory for Measuring Depression, 73
Bennett, J. L., and Kooi, K. A.: Five Phenothiazine Derivatives: Evaluation and Toxicity Studies, 37
Jacobziner, H.: Attempted Suicide in Children, 275
Kaplan, A. H.: Trends in Soviet Psychiatry, 561
Kaufman, R. M.: Hypnosis in Psychotherapy Today, 523
Melnick, J. L.: Population Genetics Applied to Live Poliovirus Vaccine, 387
Riggs, H. E., and Wahal, K. M.: Role of Cardiovascular Insufficiency in Intellectual Deterioration in Senium, 478
Russell, W. R., and Smith, A.: Post-Traumatic Amnesia in Closed Head Injury, 37
Sheeley, W. F.: The Family Physician, the Community, and the Aged, 325
Stiefel, J. R., and Hogemann, F.: Contrasting Behaviour in Two Adolescent Girls with Poliomyelitis, 438
Swanson, D. W., and Smith, J. A.: The Use of Stimulating Drugs, 117
Jurisprudence
Good Samaritan Bill, passed by state House, 125-N; passed by state Senate, 229-N
interstate carrier fined for falsification of medical certificates, 334-N
state medico-legal code, 439-N

K

Kentucky State Medical Association
scissors for building dedication, 333-N
Kovacs, Ernie
a preventable death? [Kennedy] 122-E

L

Legislation
chiropractic licensure, Louisiana, bill defeated, 336-N
chiropractic licensure, Mississippi—MSMA testimony against [Lotterhos & Long] *154; bill defeated, 193-N
chiropractic licensure, New York, bill introduced, 234-N

Good Samaritan bill, Mississippi—passed by House, 125-N; passed by Senate, 229-N
Letters to Editor
Mississippi rank in per cent of male college graduates receiving medical degrees [Lewis] 190
space medicine papers [Niess] 521
Liability, Professional
limitation in emergency care, Mississippi bill—passes House, 125-N; passes Senate, 229-N
Long, Lawrence W.
address before Second Congress, European Federation, International College of Surgeons, 234-N
Lotterhos, W. E.
address before Mississippi Chapter, National Association of Civil Service Retirement Association, 339-N
Love, William DeLoss
named to UMC chair of cardiovascular research, 335-N
Lung Diseases: See also Tuberculosis

M

McIlwain, S. B.
new member, Fifty Year Club, 47-N
Malpractice
suits against government agencies [Kennedy] 78-E
Martin, Raymond S.
outstanding alumnus of pre-med group, 236-N
Maternity
mortality, MSMA study—case report VII [Wiener] *207; 1959 state totals [Newton] *309
Mathews, Charles L.
attends management course, 336-N
Medical Care Plans: See Insurance, Health; Social Security, Medical Care
Medical Illustrations
noted artist dies, 446-N
Medical Organization: See also specific titles as American Medical Association, Mississippi State Medical Association
state association dues, 128-N
state and national meeting schedules, 119, 278, 384, 431, 471, 517
Medical Secretaries
Central Society course, 196-N
Medicare
claim form revised, 48-N
Cuban crisis, 564-N
eligibility of state national guard units, 445-N
new executive director, 440-N
Medicine: See also specific headings as Jurisprudence
advances in 1961, AMA poll, 84-N
Medicine in Sports
publication begun, 46-N
Mediphone
opens operations, 130-N
Members, New
Anderson, William Jefferson, III, 273
Azordegan, Azizollah Albert, 331
Bates, John Gilbert, 92
Baxter, Malcom Davis, Jr., 522
Bosco, Julius Sisto, 522
Bounds, George William, 436
Breeland, Jewell Jerome, Jr., 123
Buckingham, John Ladd, 123
Burgess, Charles Duane, 38
Carter, Robert Frank, Jr., 273
Clement, William Rodney, 92
Cronin, Irvin Howard, 273
Dale, David Berry, 38
Dugger, Andral Forrest, Jr., 225
Enger, Daniel John, 522
Franks, Royce Houston, 198
Griffing, Joseph Charles, 123
Hadley, James Donald, 559
Hammack, Benjamin Leslie, 436
Hopkins, Lloyd Gerald, 522
Howell, George LeRoy, 225
Jennings, Robert Erskine, 393
Kaley, Jack Straud, 92
Kuluz, Matthew Francis, 522
Lewis, Raymond, 226
McAnelly, Verla Lavon Pickering, 273
McMillan, Mabry Stanton, 226
Magee, Dennis Elton, 124
Marascalco, Johnny Andrew, 559
Marston, Robert Quarles, 92
Mayfield, Robert Von Elm, 226
Morris, Lawrence Brunson, 332
Murphy, John Willard, 393
Murrey, William Harwell, 226
Myers, Robert Patrick, 38
Reynolds, Robert Nelson, 273
Robinson, Samuel Leslie, 559
Rodda, Thaddeus Salter, 393
Ross, Theophilus Erskine, III, 559
Simmons, William Prestwood, 559
Sledge, Charles Edward, 559
Springer, Philip Karl, 273
Stephens, Joe Keeton, 198
Stokes, Jack Avery, 92
Stowers, Kurtz Bishop, 226
Suber, Robert Lee, 332
Taquino, Maurice August, 522
Tibbs, Eugene Edward, 559
Tullos, Emmett Albert, Jr., 273
Tuma, Arthur T., 124
Tutor, Forrest Travis, 226
Whites, Dayton Entrekin, 393
Wingo, Maurice Ross, 332
Wiser, Winfred Lavern, 273
Michigan Association of the Professions
1962 annual meeting, 89-N
Mid-South Postgraduate Medical Assembly
1962 annual meeting, 88-N
Stanley A. Hill named president, 192-N
Military Personnel
doctor draft, appeal and deferment procedure, 294-N
Mississippi Academy of General Practice
Annual Midwinter G. P. Seminar, 128-N
May meeting, 289-N
1962 annual meeting, 439-N, 525-N
UMC postgraduate course on trauma, 44-N
Mississippi Association of Hospital Governing Boards
1962 annual meeting, 392-N
Mississippi Association of Pathologists
officers, 287-N
Mississippi Children's Code Commission
conference on handicapped children, 90-N
Mississippi Council on Rehabilitation
March meeting, 196-N
Mississippi Economic Council-State Chamber of Commerce
opposes compulsory health care proposals under social security, 337-N
Mississippi Federation of Licensed Practical Nurses
1962 annual meeting, 567-N
Mississippi Heart Association
1962 annual meeting, 230-N
1962 cardiovascular seminar and business meeting, 127-N, 195-N
research investment, 483-N
UMC chair of cardiovascular research, 335-N
Mississippi Hospital Reimbursement Commission
program recommendations, 532-N
Mississippi Hospital School for Cerebral Palsy
praised in Danish publication, 196-N
Mississippi League for Nursing
state nursing reappraisal, 531-N
Mississippi Mental Institutions, Board of Trustees
members check progress summary, 293-N
V. E. Landry appointed, 439-N
Mississippi Numismatic Association
D. C. Montgomery president, 236-N
Mississippi Nurses Association
state nursing reappraisal, 531-N
Mississippi Orthopaedic Society
officers, 288-N
Mississippi Public Health Association
1961 annual meeting, 42-N
Mississippi Radiological Society
officers, 288-N
Mississippi Society of Anesthesiologists
officers, 288-N
Mississippi Society of Internal Medicine
officers, 288-N
Mississippi Society for the Prevention of Blindness
1962 annual session, 566-N
Mississippi Society of Professional Engineers
opposes socialized medicine, 484-N
Mississippi State Bar
medico-legal code, committee, 439-N
Mississippi State Board of Health
auto safety award, 338-N
health mobilization training course, 334-N
licensure of radioactive materials, 392-N
officers and new members, 79-N
phenylketonuria detection program, 340-N
school health service, medical correction program, 80-N
Mississippi State Hospital
institute on hospitalization of alcoholics, 568-N
Mississippi State Medical Association
Board of Trustees, August meeting, 441-N

burglars, 442-N
Central Medical Society—course for medical secretaries, 196-N; November meeting, 531-N; reception for returning medical officers, 480-N
Clarksdale and Six Counties Society—history from 1902-1960 [McGee] *18; March meeting, 231-N
Committee on AMA Education and Research Foundation, 440-N
Committee on Blood and Blood Banking, October meeting, 569-N
Committee on Maternal and Child Care, 197-N
Constitution and By-Laws, 317
Council on Scientific Assembly, 443-N
Delta Medical Society—April meeting, 233-N; October meeting, 534-N
East Mississippi Society, 82-N
Fifty Year Club, new members—William Jasper Aycock, 127-N; T. Y. Fleming, 442-N; James Herman Hughes, 44-N; S. B. McIlwain, 47-N; M. M. Powell, Sr., 80-N; T. M. Riddell, 440-N; James Purvey Wiggins, 235-N
House of Delegates, 94th annual session—call for resolutions, 127-N; formal transactions, 359; news report on transactions, 279-N
Journal—comments on third volume [Dabney] 33-E; readership study [Kennedy] 521-E; request to exchange with Chinese Medical Journal [Kennedy] 188-E
medico-legal code, committee, 439-N
membership increase, 81-N
94th Annual Session—attendance, manual count vs. IBM [Kennedy] 331-E; Distinguished Service Oration [Taylor] *267; exhibit prizes, 195-N; news report, 279-N; official call and program, 157-N; picture layout, 280-N; Pops Concert, registrants invited, 232-N; preview of plans, 39-N; schedule revision, 126-N; Space Medicine Symposium (comment on papers) [Neiss] 521-L, (exhibits) 191-N, (full text of papers) 395-424, (initial announcement) 39-N, (invitations) 192-N, (news story) 282-N; speciality group meetings, 287-N
95th Annual Session—schedule, 443-N; scientific exhibits invited, 482-N
officers, 279-N
president, biography, 292-N
President's Page, Long—Every Doctor's Business, 32; The Biggest Job, 74; The Voluntary Way, 120; Nothing Very Good or Very Bad, 186; Showdown on Socialism, 219
President's Page, Crenshaw—A Good Beginning, 328; Hits, Runs, and Errors, 358; Granddaddy of Them All, 434; White Knight or Black Eye?, 472; Socialized Statistics, 518; You Bring the Ducks, 560
Robins Award—first annual, Thomas G. Ross recipient, 286-N; second annual, nominations open, 481-N
scissors for Kentucky State Medical Association building dedication, 333-N
section officers, 284-N
testimony on H.R. 344 [Lotterhos & Long] *151
Tri-County Society, December meeting, 88-N
Trustees, Councils, Committees, listings, 156, 222, 276
vice presidents inspect scale model of Redstone Mercury Project, 128-N
voluntary retirement program under Keogh plan, 563-N
Wilkinson-Amite Society, December meeting, 89-N
Mississippi State Nutrition Council
Nutrition Emphasis Day, 484-N
Mississippi Thoracic Society
1962 annual meeting, 199-N, 291-N
Tri-State Consecutive Case Conference, 45-N
Mississippi Tuberculosis Association
1962 annual meeting, 233-N
Tri-State Consecutive Case Conference, 45-N
Mississippi Urological Association
officers, 287-N
Montgomery, D. C.
president of Mississippi Numismatic Association, 236-N
Moore, Floy Jack
chairman, Southern Professors of Psychiatry, 195-N
Morals
deterioration, a disease? [Kennedy] 475-E
Morbidity
state monthly totals, 47, 90, 132, 199, 228, 274, 332, 394, 445, 476, 521, 570
Mortality: See Infant Mortality; Maternal Mortality

N

Narcotics: See Drug Addiction
National Association of Civil Service Retirement Associations
Mississippi Chapter, William E. Lotterhos addresses, 339-N
National Geriatrics Society
essay contest, 86-N
National Library Week
fifth annual [Moore & Breland] *227
National Rehabilitation Association
Mississippi Chapter, officers, 234-N
National Tuberculosis Association
Diagnostic Standards and Classification of Tuberculosis, 11th ed., 193-N
respiratory disease campaign, 533-N
Nemours Foundation
sponsor, conference on handicapped children, 90-N
Neoplasms: See also Carcinoma; American Cancer Society
pain problems in cancer [Tutor & Youmans] *143
New Orleans Graduate Medical Assembly
1963 meeting, 335-N, 569
Nursing: See also Mississippi League for Nursing; Mississippi Nurses Association
administration of IV fluids [Kennedy] 474-E
AMA committee, program objectives, 524-N
state reappraisal, 531-N
Nutrition: See Food; Mississippi State Nutrition Council

O

Obituaries: See Deaths
Obstetrics: See American College of Obstetrics and Gynecology
Omphalocele
management and case report [Meena] *237
Otitis, External
general and specific treatment [Jones & McLain] *243

P

Pain
cancer, evaluation and disposition [Tutor & Youmans] *143
chest, differential diagnosis [Van Landingham] *453
Parker, E. C.
subject of Distinguished Service Oration [Taylor] *267
Parsons, Willard H.
tour of Far East military hospitals, 390-N
Pathology: See College of American Pathologists
Periodicals: See names of specific periodicals
Personals
Akin, Robert M., 36
Allison, Fred, Jr., 274
Anderson, Thomas J., 225
Andy, Orlando J., 78
Archer, John, 35
Artz, Curtis P., 225, 331
Austin, Duff D., 274
Barnard, W. Winston, 388
Barnes, Thomas, 225
Barron, S. H., 124
Baxter, Malcom D., 388
Berry, Donald R., 36
Bise, John R., 522
Bobo, William, 36
Bologna, N. A., 225
Booth, James E., 446
Brock, Jim M., 35
Brock, L. W., 35, 124
Brown, Marion H., 274
Brumby, Paul B., 446
Brumfield, R. H., 446
Caine, Curtis W., 475
Campbell, Charles W., 446
Carr, I. P., 36
Cole, Wilfred Q., 124
Conner, Weir, 522
Crane, Edmund H., Jr., 446
Crawford, Joseph P., 274
Crenshaw, C. P., 331
Currey, Thomas A., 446
Dabney, William Moncure, 36
Davis, Thomas M., 124
DeLany, Clarence L., 190
DeWitt, Henry W., Jr., 36
Ellis, Donald, 36
Ellis, Homer, 225
Fairchild, Hilton McKay, 475

Fenstermacher, R. H., 35
Floyd, Bedford, 124
Forman, Robert L., 36
Franks, V. D., 274
Frazier, John, 388
Friday, Howard C., 446
George, Lewis W., 225
Gifford, William B., 446
Graves, J. A., 225, 569
Gray, A. L., 124
Green, J. C., 274
Gregory, Kendall, 446
Grenfell, Raymond F., 190
Gunn, Clyde H., 124
Hall, Donald, 274
Hanes, L. C., 124
Hanes, L. C., Jr., 124
Hardy, James D., 225, 331
Harper, R. B., 190
Harper, W. T., 190
Haynes, Douglas B., 388
Hendrick, Jim G., 522
Hewes, Archibald, 124
Hill, Frank S., 522
Hill, J. R., 475
Hill, Stanley A., 475
Holmes, Verner S., 36, 446, 569
Horn, Karl, 570
Houston, Bobby Jack, 475
Howell, James M., 36
Hurt, A. D., 569
Johnson, Samuel, 388
Jones, Edley, 274
Kety, S. S., 569
Kilpatrick, T. Roger, Jr., 446
King, Bobby, 225
Knight, N. C., Sr., 124
Knox, I. C., 78, 522
Langford, Herbert G., 36
Leist, Steve, 36
Levens, J. B., 331
Levi, Sam, 124
Lipscomb, J. Walton, 446
Lotterhos, William E., 124
McArthur, R. H., 274
McCraw, Ernest J., 225
McGehee, James Claude, 522
McIntosh, Barry P., 388
McManus, Samuel P., 274, 475
Magiera, Estelle A., 124
Mason, James N., 36
Massey, Samuel O., Jr., 36, 331
May, W. R., 36
Messina, Alfred, 570
Minkler, F. C., 570
Morphy, A. N., 124
Neill, Charles L., Jr., 190
Nelson, Howard A., 36
Newton, Michael, 78
Nichols, Carl G., 225
O'Keefe, John B., 124
Parsons, Willard H., 35, 475
Pharr, Stanley L., 78
Pittman, Kenneth P., 522
Pool, W. C., 446
Posey, E. L., Jr., 274
Pruitt, Charles, 225
Purks, W. K., 36
Purvis, George, 274
Puryear, Lamar, 36
Ricks, H. C., 124
Riley, Franklin G., 522
Riley, George E., 124
Robbins, Eric P., 388
Roberts, Curtis D., 570
Ross, T. E., Jr., 446
Ross, T. E., III, 446
Rubisoff, R., 36
Rush, H. Lowry, 225
Rutledge, Elise, 522
Schuster, Richard E., 570
Segars, Kelly, 225
Sistrunk, William F., 522
Spell, James P., 446
Stacy, Jack, 190
Street, Herbert S., 225
Thaggard, A. L., 446
Thaggard, A. L., Jr., 446
Tillman, William F., 570
Toms, Roland E., 124
Truett, George W., 446
Turner, L. D., 36
Veller, Margaret P., 190
Waddell, James, 225
Wadsworth, Henry M., 570
Wadsworth, Henry M., Jr., 570
Waldrop, Henry G., 522
Walley, W. W., 124
Ward, A. Gayden, 446
Ward, Charles E., 522
Webb, Watts R., 78
Welch, William C., Jr., 475
Wilkins, Louie F., 274
Wilson, David B., 78, 446
Wilson, George Myron, 475
Wise, Louis J., Jr., 570
Witte, Wallie B., 446
Wofford, John D., 274
Womack, Noel C., Jr., 522
Youmans, Julian R., 570

Phenylketonuria
state detection program, 340-N

Philadelphia County (Pa.) Medical Society
honors James D. Hardy, 530-N

Physicians
Mississippi, 1961 deaths, 197-N
rate first in feminine poll [Kennedy] 520-E
supply, is there a shortage? [Kennedy] 34-E
supply, Mississippi rank in per cent of male college graduate attaining medical degrees [Kennedy] 77-E

Poisons
jequirity bean necklaces [Kennedy] 520-E

Poliomyelitis
immunization, where we stand [Gray] *512
insurance benefits in 1961, 91-N
vaccine, oral, license granted for Type III, 236-N

Politics
AMA and labor lobby expenditures [Kennedy] 224-E
administration 'lobby' [Kennedy] 272-E

Powell, M. M., Sr.
new member, Fifty Year Club, 80-N

Psychiatry: See Southern Professors of Psychiatry

Psychotherapy
bibliotherapy as adjunct, 227-N

Public Health: See Mississippi Public Health Association

Q

Quackery
aimed at arthritics [Crenshaw] *554
"curative" honey, seized by FDA, 45-N
diagnostic machine, seizure campaign, 390-N
faith healers, pronouncement of United Lutheran Church [Kennedy] 223-E
health frauds, how to combat [Long] *351

R

Radioactive Fallout
shelters, IBM employee loans, 92-N

Radioactivity
Regional Conference on Radiation Control, 565-N
state assumes control of materials, 392-N

Radiography
risk to reproductive system, 336-N
chiropractic use, 234-N

Radiologic Seminars
I—Subpulmonary Pleural Effusion [Sloan] 220
II—Pulmonary Embolism with Infarction [Harris] 258
III—Pharyngo-esophageal Diverticulum [McIlwain] 312
IV—Colonic Diverticulitis [Goodrich] 354
V—Aspirated Nonopaque Bronchial Foreign Bodies [Surratt] 432
VI—Pulmonary Histoplasmosis [Henderson] 460
VII—Hypertrophic Osteoarthropathy [Fant] 510
VIII—Foreign Bodies in the Esophagus [Dominick] *546

Rehabilitation: See Mississippi Council on Rehabilitation

Research
medical advances in 1961, 84-N

Respiratory Diseases: See American Thoracic Society; Mississippi Thoracic Society; Mississippi Tuberculosis Association

Retirement
MSMA-DGB voluntary retirement program under Keogh plan, 363-N

Rheumatism: See Arthritis and Rheumatism Foundation

Rhinology: See American Rhinologic Society

Riddell, T. M.
new member, Fifty Year Club, 440-N

Robins, A. H.; Company
community service award, 286-N, 481-N

Roentgenography: See Radiography

Rosenkranz, Otto H.
recipient of University of Pennsylvania Distinguished Senior Alumnus citation, 232-N

S

St. Dominic-Jackson Memorial Hospital
press relations desk, 392-N

Salk, Jonas
comments on modern research [Kennedy] 331-E

institute, construction begun, 339-N
Saunders, W. B.; Company
medical writing award, 562-N
publications listed, 92, 196, 276, 391, 478, 567
Serum Globulin: See Gamma Globulin
Smoking: See Tobacco Industry Research Committee
cigarette cough, 88-N
Social Security
medical care for aged, Anderson-Javits amendment [Kennedy] 386-E
medical care for aged, King-Anderson bill—American Hospital Association's position [Kennedy] 121-E; medical profession and hospital industry positions compared [Nelson] *467; Mississippi Economic Council-State Chamber of Commerce opposes, 337-N; poll of University of Mississippi faculty and students [Kennedy] 558-E; Colorado public opinion study [Kennedy] 35-E
unemployment benefits, federalization [Kennedy] 77-E
Socialized Medicine: See State Medicine
South Central Association of Blood Banks
Robert S. Cooke, district director, 230-N
Southeastern School of Alcohol Studies
second session, 340-N, 482-N
Southern Medical Association
1962 annual meeting, 526-N
Southern Professors of Psychiatry
Floy Jack Moore chairman, 195-N
Space: See also Mississippi State Medical Association, 94th Annual Session, Space Medicine Symposium
aerospace flight, medical problems [Stapp] *404
aerospace flight, physiological monitoring [Simons] *413
fourth environment [Long] *395
medicine [Dabney] 435-E
moon, bioastronautical evaluation [Strughold] *397
US program [Stennis] *421
Southern Regional Conference on Radiation Control
meets in Jackson, 565-N
Specialism
designations, AMA revision, 41-N
necessity of times [Kennedy] 519-E
Sports Medicine
newsletter on, 46-N
State Medicine
Mississippi Society of Professional Engineers opposes, 484-N
Sterility: See American Society for the Study of Sterility
Stone, Orville J.
husband-wife cartoonist team (JMSMA feature) *113
Students, Medical
Mississippi third in per cent of male college graduates receiving medical degrees [Kennedy] 77-E; [Lewis] 190-L
recruitment, physician's part [Dabney] 187-E
recruitment, state and county society programs, 82-N
Surgery: See also American College of Surgeons; International College of Surgeons
techniques in deafness [Lewis] *133
Syphilis
national task force report, 198-N

T

Tatum, Mrs. A. T.
Woman's Auxiliary president, 293-N
Thorax: See Chest
Thyroid Gland
clinical evaluation of function [Farr] *201
Tissue Committees
a medico-legal threat? [Kennedy] 272-E
Tobacco: See Smoking
Tobacco Industry Research Committee
research grants, 89-N
Tuberculosis: See also American Thoracic Society; Mississippi Thoracic Society; Mississippi Tuberculosis Association, National Tuberculosis Association
diagnostic standards manual, 193-N
Tulane University School of Medicine
postgraduate course, hand surgery, 43-N

U

Ulcer: See Corneal Ulcer; Duodenal Ulcer
University of Mississippi
AMA-ERF check, 193-N
arthritis seminar, 81-N
chair of cardiovascular research, 335-N
circuit courses, 83-N, 567-N
cystic fibrosis clinic, 444-N
Department of Psychiatry new assistant professor named, 568-N
family health course, 131-N
Medical Education for National Defense program, 235-N
medical school commencement, 276-N, 333-N
medical school staff increase, 231-N
Midwinter GP Seminar, 128-N
1961 medical school graduate dies, 48-N
1962 Cardiovascular Seminar, 127-N, 195-N
nurse training facility, 440-N
old medical school building named for B. S. Guyton, 389-N
poll on King-Anderson type legislation [Kennedy] 558-E
pre-med day, 567-N
psychiatric unit opening, 479-N
research wing—construction begun, 42-N; progress report, 126-N
rheumatology course, 46-N
Social Science in Medicine series—first lecture, 87-N; third lecture, 235-N; fourth lecture, 480-N
trauma course for GP's, 44-N
trauma seminar, 569-N
UMC Day, 46-N, 129-N
Urinary Fistula
prevention, diagnosis, and repair [Murphy] *485

V

Venereal Disease: See Syphilis
Veterans Affairs
Jackson VA center and hospital dedication, 192-N, 230-N
Viruses
diseases, crippling effects and recent research [Bergsma] *543
present status in clinical medicine and public health [Hogan & Cooper] *9

W

West Virginia Medical Journal
new editor, 236-N
Wiggins, James Purvey
new member, Fifty Year Club, 235-N
Woman's Auxiliary
Central, officers, 200-N
MSMA—executive board meetings, 132-N; 1962 Annual Session (AMA representative) 200-N, (news report) 294-N, (schedule) 200; president, biography, 293-N
Workmen's Compensation
costs to industry [Kennedy] 386-E
Wounds: See also Fractures
hand, traumatic, closure [Davis] *105

TABLE OF PAGES

January	1	to 48	June	237	to 294	November	485	to 534
February	49	to 92	July	295	to 340	December	535	to 578
March	93	to 132	August	341	to 394	By-Laws of the Association	317	to 324
April	133	to 200	September	395	to 446	Transactions of 1962 House of Delegates	359	to 383
May	201	to 236	October	447	to 484			

AUTHOR INDEX

The letters used to explain in which department the matter indexed appears are as follows: "E," Editorial; "N," News; "BR," Book Review; "JR," Journal Review; "L," Letters to Editor; "PP," President's Page; "RS," Radiologic Seminar; the asterisk (*) indicates an original article in the JOURNAL.

B

Barnett, W. O., *295
Batson, M. B., 438-JR
Bergsma, D., *543
Blake, T. H., 115-BR
Blakey, D. L., *349
Breland, W. E., *227
Briggs, A. H., *93
Brooks, T. J., Jr., 387-JR
Brunson, J. G., *492

C

Carnes, M. A., *447
Cecil, R. L., *345
Clark, G. M., *535
Cooper, G. R., *9
Costley, L. C., Jr., 325-BR
Crenshaw, C. P., 328-PP, 358-PP, 434-PP, 472-PP, 518-PP, *554, 560-PP

D

Dabbs, O. D., Jr., 387-BR
Dabney, W. M., 33-E, 187-E, 435-E, 473-E
Davis, J. T., *105
Dominick, T. B., 546-RS

E

Ellis, H. G., *502

F

Fabian, L. W., *447
Fant, W. M., 510-RS
Farr, A. L., *201
Field, R. J., Jr., 437-BR

G

Gammill, S. L., *492
Glover, D. M., *49
Goodrich, J. K., 354-RS
Graves, S. O., 189-BR
Gray, A. L., *512
Grenfell, R. F., *93

H

Hammond, K., *470
Hamrick, D., 311-poem
Hanes, L. C., 117-JR
Hardy, J. D., *341
Harris, E. J., 258-RS
Henderson, R. P., 460-RS
Hickman, B. T., *6
Hogan, R. B., *9
Holland, W. C., *93
Hubbard, O. E., 37-JR, 73-JR, 523-JR, 562-JR

J

Johnson, D. V., *492
Jones, E. H., *243

K

Kennedy, R. B., 34-E, 35-E, 77-E, 78-E, 121-E, 122-E, 188-E, 223-E, 224-E, 272-E, 329-E, 331-E, 385-E, 386-E, 436-E, 474-E, 475-E, 519-E, 520-E, 521-E, 558-E
Kisner, W. H., *209
Knox, I. C., Jr., 437-BR

L

Lewis, E. T., 190-L
Lewis, M. L., Jr., *133
Lindley, J. E., 523-BR
Long, L. W., 32-PP, 74-PP, 120-PP, *151, 186-PP, 219-PP, *351, *395
Longino, L. A., *497
Lotterhos, W. E., 75-E, *151, 275-BR, 474-E

M

McCay, T. S., *102
McGee, R. R., *18
McIlwain, A. J., 312-RS
McLain, P. G., *243
McQuinn, W. C., 477-BR
Marascalco, F. T., 116-BR, *249
Martin, G. H., 271-E
Martinolich, A. K., Jr., *470
Meena, A. L., *237
Moore, F. J., *227, 275-JR
Morrison, E., 477-BR
Mosey, L. M., *58
Mounger, S. G., *66
Murphey, F., *1
Murphy, J. J., *485

N

Nelson, H. A., *467
Newton, M., *309
Niess, O. K., 521-L

P

Pace, W. G., *540
Plauche, W. C., *99

R

Rossett, N. E., *138
Rush, L. V., *61
Rush, L. V., Jr., *61

S

Sadler, B. M., *514
Shands, W. C., 561-BR
Simons, D. G., *413
Sloan, R. D., 220-RS
Stapp, J. P., *404
Stennis, J. C., *421
Strughold, H., *397
Surratt, R. R., 432-RS
Sutherland, C. G., 387-BR
Switzer, D. M., Jr., 523-BR

T

Taylor, C. D., Jr., *267
Toms, R. E., 37-JR, 325-JR, 478-JR
Tutor, F. T., *143

V

Van Landingham, D. J., 73-BR, *453

W

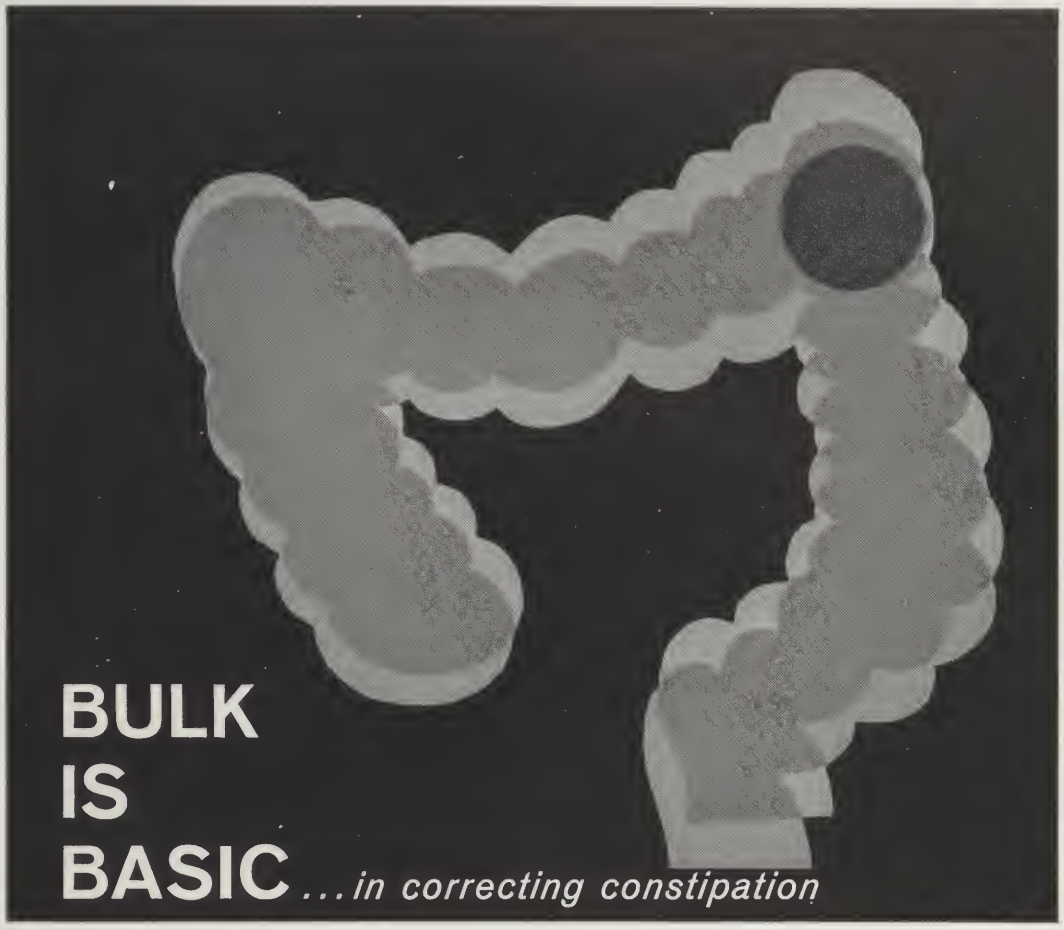
Watkins, C. A., 227-BR
Watson, D. G., *58
Webb, W. R., *341
Wesson, T. W., *13
Westhafer, H. N., 189-BR
Wiener, W. B., *207
Womack, N. C., 561-BR

Y

Youmans, J. R., *143

VOLUME III COUNT-DOWN

As JOURNAL MSMA's third year of publication ended, a quick count showed that Volume III carried articles on 273 topics and material by 96 authors. Included in this tally were 61 scientific articles, 9 special articles and 37 editorials. News stories for the year totalled 238. Articles in Volume III ranged literally from **Abortion** to **Wounds** and subject-wise from **Doodling** to **Ulcers.**



METAMUCIL®

BRAND OF PSYLLIUM HYDROPHILIC MUCILLOID

STRENGTHENS THE COLONIC REFLEX

"The natural stimulus to peristalsis[1] ... is the distension of the intestinal wall...."

The effectiveness of Metamucil in correcting constipation is a direct result of its physiologic action.

The stimulus which initiates the defecatory reflex is the fecal mass in the lower sigmoid colon and rectum. Metamucil provides that mass as a bland, nonirritating, easily compressed bulk, similar in consistency to the normal protective mucus of the colon.

Taken regularly, Metamucil tends to correct the insensitive reflex of a bowel abused by laxatives and to restore the natural responsiveness to the urge to stool.

Metamucil is available as Metamucil powder in 4, 8 and 16-oz. containers and as lemon-flavored Instant Mix Metamucil in cartons of 16 and 30 single-dose packets.

1. Best, C. H., and Taylor, N. B.: The Physiological Basis of Medical Practice, ed. 6, Baltimore, The Williams & Wilkins Company, 1955, p. 578.

G. D. SEARLE & CO.

CHICAGO 80, ILLINOIS

Research in the Service of Medicine

TRUSTEES, COUNCILS, AND COMMITTEES

BOARD OF TRUSTEES

H. H. McClanahan, Jr., Columbus, Chairman (1964)
John B. Howell, Jr., Canton, Vice Chairman (1965)
C. D. Taylor, Jr., Pass Christian, Secretary (1963)
Charles W. Patterson, Rosedale (1964)
Joseph B. Rogers, Oxford (1964)
Mal S. Riddell, Jr., Winona (1965)
Lamar Arrington, Meridian (1965)
William E. Moak, Richton (1963)
Everett H. Crawford, Tylertown (1963)

COUNCIL ON BUDGET AND FINANCE

W. K. Purks, Vicksburg, Chairman (1963)
Omar Simmons, Newton (1964)
J. T. Davis, Corinth (1965)

EDITORIAL COUNCIL

W. Moncure Dabney, Crystal Springs, Editor (1963)
George H. Martin, Vicksburg, Associate Editor (1964)
Dewitt W. Hamrick, Corinth, Associate Editor (1963)

COUNCIL ON MEDICAL EDUCATION

Temple Ainsworth, Jackson, Chairman (1963)
E. LeRoy Wilkins, Clarksdale (1964)
W. O. Barnett, Jackson (1965)

COUNCIL ON CONSTITUTION AND BY-LAWS

E. Leroy Wilkins, Clarksdale, Chairman (1963)
Frank C. Massengill, Brookhaven (1965)
John B. Howell, Jr., Canton (1964)

COUNCIL ON LEGISLATION

W. E. Lotterhos, Jackson, Chairman (1963)
Lamar Arrington, Meridian (1964)
John G. Egger, Drew (1965)
R. E. Shands, New Albany (1965)
Frank M. Davis, Corinth (1965)
Paul B. Brumby, Lexington (1964)
Van C. Temple, Hattiesburg (1963)
A. V. Beacham, Magnolia (1963)
James T. Thompson, Moss Point (1963)

JUDICIAL COUNCIL

E. LeRoy Wilkins, Clarksdale, Chairman (1965)
R. L. Wyatt, Holly Springs (1965)
Thomas N. Braddock, Jr., West Point (1965)
Samuel B. Caruthers, Grenada (1963)
George H. Martin, Vicksburg (1963)
Omar Simmons, Newton (1963)
A. T. Tatum, Petal (1964)
G. Swink Hicks, Natchez (1964)
W. J. Weatherford, Pascagoula (1964)

COUNCIL ON MEDICAL SERVICE

Guy T. Vise, Meridian, Chairman (1965)
M. Q. Ewing, Amory, Vice Chairman (1963)
Edward Pennington, Ackerman (1965)
Frank M. Acree, Greenville (1963)
Joseph B. Rogers, Oxford (1963)
Temple Ainsworth, Jackson (1965)
T. E. Ross, Hattiesburg (1964)
E. H. Crawford, Tylertown (1964)
Fred C. Minkler, Pascagoula (1964)

COUNCIL ON SCIENTIFIC ASSEMBLY

C. G. Sutherland, Jackson, Chairman (1964)
Thomas W. Wesson, Tupelo, EENT
William E. Lotterhos, Jackson, GP
Joe S. Covington, Meridian, Medicine
Blanche Lockard, Jackson, Ob-Gyn
Joseph B. Miller, Jackson, Pediatrics
W. E. Riecken, Kosciusko, Preventive Medicine
Joseph G. McKinnon, Hattiesburg, Surgery



Marvelous low-residue meal—consommé, molded flaked fish, farina-plum pudding—and beer!

How to help your patient stick to a low-residue diet

What could be more acceptable to the patient who's tired of his low-residue diet than some truly appetizing dishes?

Consommé is delicious served jellied or hot. Eggs can be soft or hard-cooked by simmering. Flaked fish molded in lemon gelatin looks inviting.

For delicious "burgers," just moisten chopped beef with broth and mix in bread crumbs. Puréed vegetables, folded into well-beaten eggs (yolks and whites) and baked, make delectable "soufflés."

For a unique and delicious salad, try split bananas over cottage cheese, top with puréed apricots. For taste-tempting parfaits—alternate layers of farina pudding and puréed plums.



And a glass of beer can add zest to your patient's diet

pH-4.3,
104 Cal./8 oz. glass
(Average of American Beers)

United States Brewers Association, Inc.

For reprints of this and 11 other diet menus, write us at 535 Fifth Avenue, N.Y. 17, N.Y.



FILMTAB®

SURBEX-T® provides therapeutic B-complex with 500 mg. of C

...in ORAL form?



Patients receive replenishment in the easiest possible manner when the water soluble vitamins are depleted, or demands are increased.

Each Filmtab® Surbex-T represents:

Thiamine Mononitrate (B_1)	15 mg.
Riboflavin (B_2)	10 mg.
Nicotinamide	100 mg.
Pyridoxine Hydrochloride	5 mg.
Cobalamin (Vitamin B_{12})	4 mcg.
Calcium Pantothenate (as calcium pantothenate racemic)	20 mg.
Ascorbic Acid (C) (as sodium ascorbate)	500 mg.
Desiccated Liver, N.F.	75 mg.
Liver Fraction 2, N.F.	75 mg.

...and when needs are more moderate, SUR-BEX® with C, Abbott's improved B-complex formula with 250 mg. of C.

ABBOTT

210270

Filmtab—Film-sealed tablets, Abbott: U.S. Pat. No. 2,881,085



Put your low-back patient back on the payroll

Soma relieves stiffness –stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, fast!

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

Kestler reports in controlled study: *Average time for restoring patients to full activity: with Soma, 11.5 days; without Soma, 41 days.* (*J.A.M.A. Vol. 172, No. 18, April 30, 1960.*)

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. **USUAL DOSAGE: 1 TABLET Q.I.D.**

The muscle relaxant with an independent pain-relieving action

SOMA®

(carisoprodol, Wallace)

Wallace Laboratories, Cranbury, New Jersey

MEETINGS

NATIONAL AND REGIONAL

American Academy of General Practice, April 1-4, 1963, Chicago, Ill. Mr. Mac F. Cahal, Executive Director, Volker Blvd., at Brookside, Kansas City 12, Mo.

STATE AND LOCAL

Mississippi State Medical Association, May 13-16, 1963, Biloxi. Mr. Rowland B. Kennedy, Executive Secretary, 735 Riverside Drive, Jackson.

Amite-Wilkinson Counties Medical Society, First Tuesday March, June, September, December. S. E. Field, Centreville, Secretary.

Central Medical Society, First Tuesday Monthly, 6:30 p.m., Robert E. Lee Hotel, Jackson. George E. Gillespie, 514-A East Woodrow Wilson Drive, Jackson, Secretary.

Claiborne County Medical Society. D. M. Segrest, Port Gibson, Secretary.

Clarksdale and Six Counties Medical Society, Second Wednesday March and November, 2:00 p.m., Clarksdale. Whitman B. Johnson, Jr., 645 Evelyn Ave., Clarksdale, Secretary.

Coast Counties Medical Society, First Wednesday March, June, September, and November. Charles N. Floyd, 1412-23rd Ave., Gulfport, Secretary.

Delta Medical Society, Second Wednesday April and October. Howard A. Nelson, 308 Fulton St., Greenwood, Secretary.

DeSoto County Medical Society, Second Thursday January, April, July, and October, 1:00 p.m., Hernando Motel Cafe, Hernando. L. L. Minor, Route 9, Memphis 9, Tenn., Secretary.

East Mississippi Medical Society, First Tuesday February, April, June, August, October, and December. Hugh S. Rayner, Jr., 1216-21st Ave., Meridian, Secretary.

Homochitto Valley Medical Society, Fourth Tuesday Monthly, 7:30 p.m., Natchez Country Club, Natchez. W. T. Colbert, Natchez General Hospital, Natchez, Secretary.

North Central District Medical Society, Second Wednesday March and September. Robert B. Townes, Jr., 1196 Mound St., Grenada, Secretary.

Northeast Mississippi Medical Society, Second Tuesday March, June, September, and December, Tupelo. Thomas W. Wesson, 421 Main St., Tupelo, Secretary.

North Mississippi Medical Society, First Thursday January, April, and October, Oxford. Marcus E. Morrison, 512 Van Buren Ave., Oxford, Secretary.

Pearl River County Medical Society, Second Monday March, June, September, and December. Samuel O. Massey, Jr., 220 E. Canal St., Picayune, Secretary.

South Mississippi Medical Society, Second Thursday March, June, September, and December. Thomas F. Puckett, 715 Arledge St., Hattiesburg, Secretary.

Tri-County Medical Society, Second Tuesday March, June, September, and December. A. V. Beacham, Magnolia, Secretary.

West Mississippi Medical Society, Second Tuesday January, April, July, and October, 7:00 p.m., Old Southern Tea Room, Vicksburg. Tom H. Mitchell, The Street Clinic, Vicksburg, Secretary.

ANNUAL CLINICAL CONFERENCE

CHICAGO MEDICAL SOCIETY

March 4, 5, 6 and 7, 1963
Palmer House, Chicago

Daily Half-Hour Lectures by Outstanding Teachers and Speakers on subjects of interest to both general practitioner and specialist.

Panels on Timely Topics
Teaching Demonstrations
Medical Color Telecasts
Instructional Courses
Film Lectures

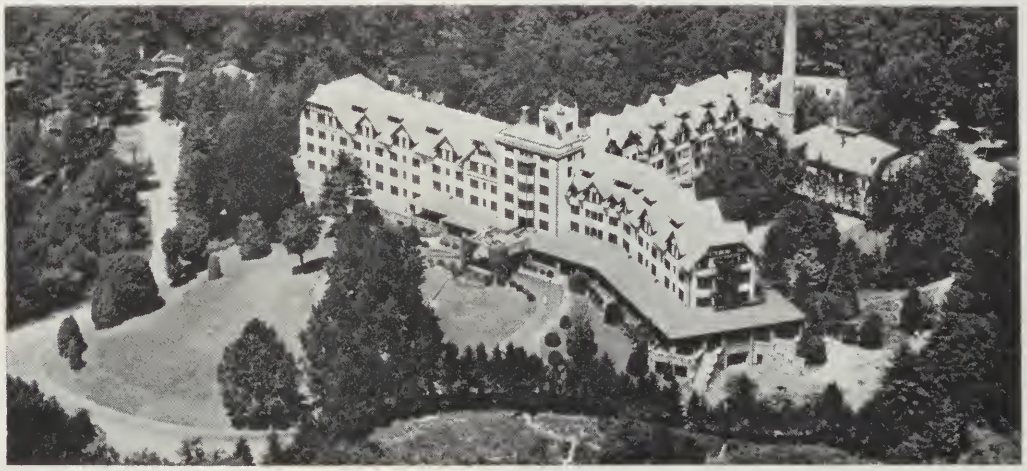
Scientific Exhibits worthy of real study and helpful and time-saving Technical Exhibits.

The Chicago Medical Society Annual Clinical Conference should be a MUST on the calendar of every physician. Plan now to attend and make your reservations at the Palmer House.

APPALACHIAN HALL

ESTABLISHED — 1916

ASHEVILLE NORTH CAROLINA



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.

Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.

Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

WM. RAY GRIFFIN, JR., M.D.
ROBERT A. GRIFFIN, M.D.
MARK A. GRIFFIN, SR., M.D.
MARK A. GRIFFIN, JR., M.D.

For rates and further information, write: APPALACHIAN HALL, ASHEVILLE, N. C.

BONADOXIN® for nausea and vomiting

Confirmed in over 7 years of clinical success: Bonadoxin stops morning sickness in 9 out of 10 patients[1]

Highly effective in other emetic conditions: postoperatively, following irradiation procedures, infant colic.

BONADOXIN®
Tablets · Drops · Intramuscular

time-tested for efficacy and safety

1. Groskloss, H.H., Clancy, C.L., Healey, E.F., McCann, W.J., Maloney, F.D., Loritz, A.F.: Clinical Medicine (Sept.) 1955.
Study involving 287 patients. 261 patients experienced excellent to good results with Bonadoxin for relief of nausea and vomiting of pregnancy. No side effects reported.[1]

2. Albertson, H.A., Trout, Jr., H.H., Daily, F.W.: The American Journal of Surgery (Sept.) 1956.
"As a result of this study, it is our belief that the routine prophylactic use of the combination of meclizine hydrochloride and pyridoxine is a safe and effective method for lessening the incidence of postoperative nausea and vomiting. We are employing this preparation as a routine pre-operative medication."[2]

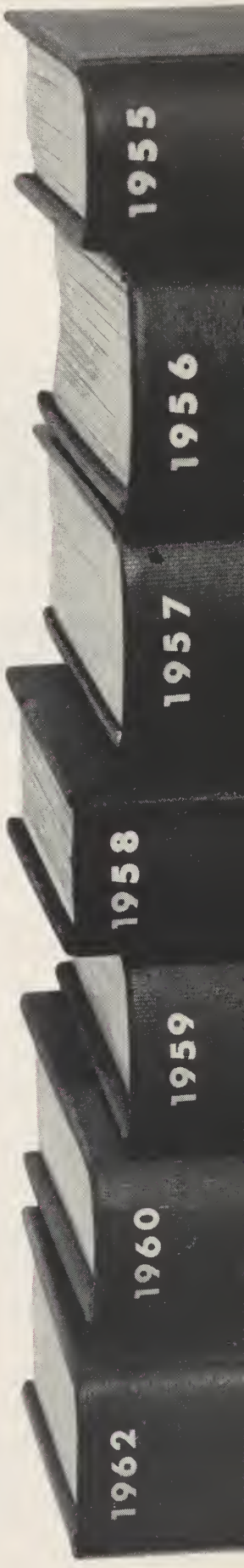
3. Goldsmith, J.W.: Minn. Med. (Feb.) 1957.
Study involving 620 patients, 537 patients experienced moderate to complete improvement of nausea and vomiting of pregnancy with Bonadoxin. Toxicity and intolerance to the medication in the dosage employed in these studies was zero.[3]

4. Codling, J.W.; Lowden, R.J.: Northwest Med. (March) 1958.
Study involving 76 pregnant patients with nausea and vomiting. The results indicated an overall response in 70 of 76 patients treated. No side reactions were observed in this clinical study.[4]

5. Bentley, M.D.: Journal of the Mich. State Med. Soc. (Sept.) 1959.
[Bonadoxin] "was found clinically effective in the prevention of pre-operative and post-operative nausea and emesis in 157 patients who underwent ocular surgery, while control drugs alone could not completely eliminate the symptoms. Bonadoxin did not cause side reactions in the preoperative or postoperative phase of this study."[5]

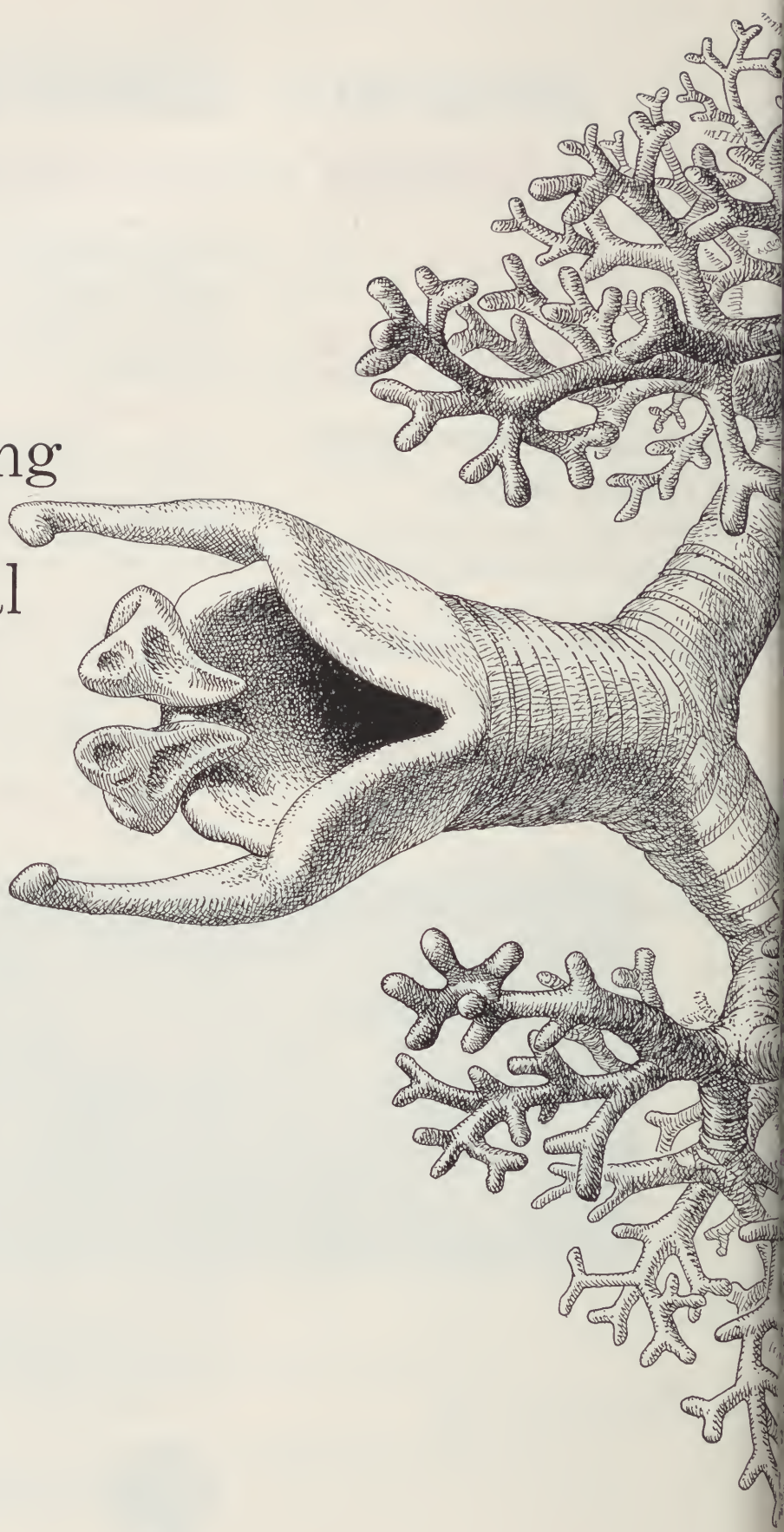
6. Bethea, R.C.: International Record of Med. (May) 1960.
"Our investigation of this drug indicates that in 88 per cent of the cases satisfactory relief of the distressing symptoms of early pregnancy was obtained without undesirable side effects, including sedation."[6]

7. Sklaroff, D.M.; Karayannis, N.: Current Therapeutic Research (June) 1962.
"Based on these results, indicating 92 per cent effectiveness, meclizine-pyridoxine (Bonadoxin®) may be considered a valuable compound in the control of post-irradiation nausea and vomiting. The preparation proved to be safe and fast-acting in bringing therapeutic relief to carcinoma patients with radiation sickness."[7]



Roerig
New York 17, N.Y.
Div., Chas. Pfizer & Co., Inc.
Science for the World's Well-Being®

gratifying
relief
in bronchial
asthma

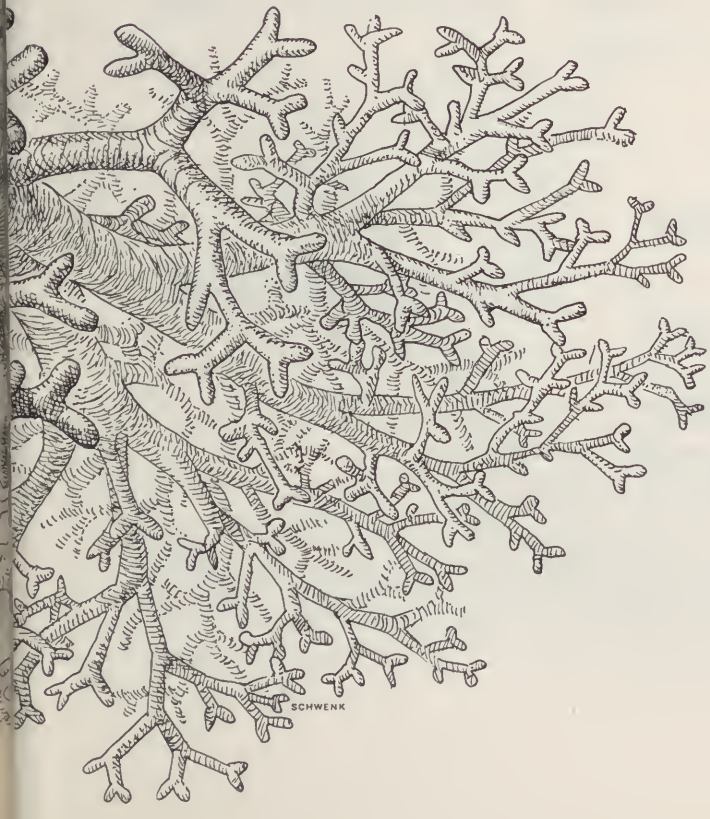




unsurpassed for total patient benefits

Aristocort®

Triamcinolone Lederle



With ARISTOCORT, asthmatic patients obtain sustained relief of wheezing, dyspnea, and spasmodic coughing. It is of particular value in ameliorating severe attacks that may have serious sequelae. With ARISTOCORT, many patients who might otherwise be invalids are able to continue their customary livelihoods or maintain their regular household activities. Yet this symptomatic relief is not often accompanied by the hormonal collateral effects —sodium retention, edema, emotional disturbance, insomnia, voracious appetite— that so often have been a deterrent to steroid therapy.

SUPPLIED: Scored tablets (three strengths), syrup and parenteral. Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

Lederle

LEDERLE LABORATORIES
A Division of
American Cyanamid Company
Pearl River, New York

Cancer Techniques Discussed at Seminar

The latest techniques in cancer diagnosis and treatment were discussed at the Nov. 8 professional seminar sponsored by the Mississippi Division, American Cancer Society, in cooperation with the Mississippi Academy of General Practice.

Held at the Broadwater Beach Hotel in Biloxi, the seminar featured four scientific speakers. Dr. William W. Ogden of the Louisiana State University School of Medicine, New Orleans, spoke on "Carcinoma of the Thyroid." Dr. Murray M. Copeland of Anderson Hospital, Houston, Texas, discussed "What Is New in Cancer." Dr. Warren N. Bell of the University of Mississippi School of Medicine, Jackson, talked on "Chemotherapy in the Management of Cancer," and Dr. Howard Mahorner, Mahorner Clinic, New Orleans, discussed "Malignancies of the Large Bowel."

Dr. Willard H. Parsons, chairman of the Professional Education Committee, Mississippi Division, American Cancer Society, presided over the seminar and moderated a panel discussion on "The Role of the Viruses in the Cancer Problem." Panelists were the scientific speakers.

MHA Accepting Applications For 1963-64 Research Grants

The Mississippi Heart Association is now accepting applications for research grants-in-aid for 1963-64, according to Lucile Little, executive director.

MHA grants are made to nonprofit institutions in direct support of a particular investigator, for a specific program of research under his direction. Grants are awarded in support of research in the cardiovascular field or basic sciences related to it for periods of one to three years.

Applications, which must be received by March 1, 1963, will be reviewed by the Research Grants and Fellowships Committee of the association. Grants will be approved on or about April 1, 1963, and awards will be made July 1, 1963.

Allocations to this phase of the heart association's research support have increased from $1,000 in 1953 to a proposed $50,000 for 1963. A total of 35 investigators have received grants from this fund, and 10 fellowships have been awarded.

Further information and applications forms may be secured from Miss Little, Mississippi Heart Association, 145 East Amite Street, Jackson, Miss.

Announcing the Twenty-Sixth Annual Meeting of THE NEW ORLEANS GRADUATE MEDICAL ASSEMBLY

Conference Headquarters—Roosevelt Hotel, March 4, 5, 6, 7, 1963

GUEST SPEAKERS

John R. Haserick, M.D., Cleveland, Ohio
Dermatology
Henry J. Tumen, M.D., Philadelphia, Pa.
Gastroenterology
Logan T. Robertson, M.D., Asheville, N. C.
General Practice
Andrew A. Marchetti, M.D., Washington, D. C.
Gynecology
Raymond D. Pruitt, M.D., Houston, Tex.
Internal Medicine
Paul S. Rhoads, M.D., Chicago, Ill.
Internal Medicine
C. H. Hardin Branch, M.D., Salt Lake City, Utah
Neuropsychiatry
J. Robert Willson, M.D., Philadelphia, Pa.
Obstetrics
James I. Moore, M.D., Baltimore, Md.
Ophthalmology
James E. Bateman, M.D., Toronto, Ont., Can.
Orthopedic Surgery
Joseph H. Ogura, M.D., St. Louis, Mo.
Otolaryngology
Edward A. Gall, M.D., Cincinnati, Ohio
Pathology
Weston M. Kelsey, M.D., Winston-Salem, N. C.
Pediatrics
Curtice Rosser, M.D., Dallas, Tex.
Proctology
Ted F. Leigh, M.D., Atlanta, Ga.
Radiology
John L. Keeley, M.D., Chicago, Ill.
Surgery
John L. Madden, M.D., New York, N. Y.
Surgery
Edwin P. Alyea, M.D., Durham, N. C.
Urology

Additional guest speaker to be announced

Lectures, symposia, clinicopathologic conferences, round-table luncheons, medical motion pictures, technical exhibits and entertainment for visiting wives.

(All-inclusive registration fee—$20.00)

THE CLINICAL TOUR TO MEXICO VISITING MEXICO CITY, CUERNAVACA, TAXCO AND ACAPULCO

Leaving March 8 via air and returning March 23, 1963

(Optional extensions may be arranged)

For information concerning the Assembly meeting and the tour write Secretary, Room 105, 1430 Tulane Avenue, New Orleans 12, La.

RELIEVE THE COLD SUPPRESS THE COUGH WITH NEW

'EMPRAZIL-C'

TABLETS

ANTITUSSIVE ▪ DECONGESTANT ▪ ANALGESIC

Each tablet contains:

Codeine Phosphate*	15 mg.
'Sudafed'® brand Pseudoephedrine Hydrochloride	20 mg.
'Perazil'® brand Chlorcyclizine Hydrochloride	15 mg.
Acetophenetidin	150 mg.
Aspirin (Acetylsalicylic Acid)	200 mg.
Caffeine	30 mg.

*Warning—may be habit forming.

Complete literature available on request.



Also available without codeine as

'EMPRAZIL'®

TABLETS

BURROUGHS WELLCOME & CO. (U.S.A.) INC., TUCKAHOE, N.Y.

In intestinal "grippe"

prompt 4 way check of diarrhea

- Curbs excessive peristalsis
- Adsorbs toxins and gases
- Soothes inflamed mucosa
- Provides intestinal antisepsis



POMALIN

TRADEMARK

Liquid

EFFECTIVE ANTIDIARRHEAL

FORMULA: *Each 15 cc. (tablespoon) contains:*
Sulfaguanidine U.S.P. ... 2 Gm.
Pectin N.F. ..... 225 mg.
Kaolin ..... 3 Gm.
Opium tincture U.S.P. ...0.08 cc.
(equivalent to 2 cc. paregoric)

DOSAGE: **Adults:** Initially 1 or 2 tablespoons from four to six times daily, or 1 or 2 teaspoons after each loose bowel movement; reduce dosage as diarrhea subsides.

Children: ½ teaspoon (=2.5 cc.) per 15 lb. of body weight every four hours day and night until stools are reduced to five daily, then every eight hours for three days.

SUPPLIED: *Bottles of 16 fl. oz. (raspberry flavor, pink color)*
Exempt Narcotic. Available on Prescription Only.

Winthrop LABORATORIES
New York 18, N. Y.

Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.

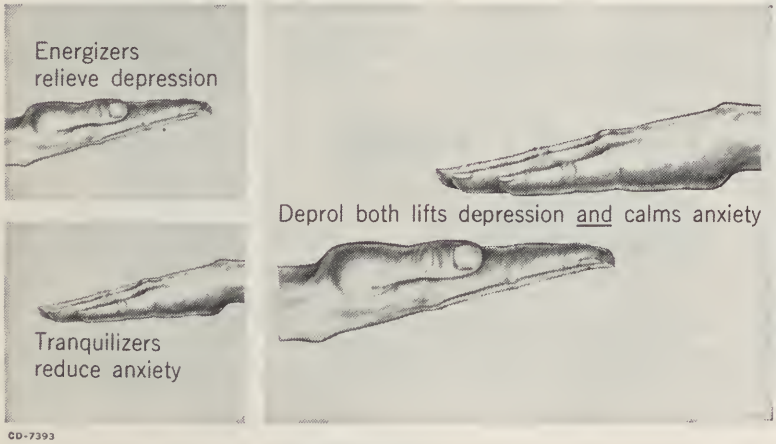


LIFTS DEPRESSION ...AS IT CALMS ANXIETY



"I feel like my old self again!" Balanced Deprol therapy has helped relieve her insomnia and fatigue – her normal energy, drive and interest have returned.

Brightens mood...relaxes tension



CD-7393

Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this may be increased gradually up to 3 tablets q.i.d. With establishment of relief, the dose may be reduced gradually to maintenance levels.

Composition: 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl) and 400 mg. meprobamate.

Supplied: Bottles of 50 light-pink, scored tablets.

Write for literature and samples.

▲Deprol▲®

WALLACE LABORATORIES
Cranbury, N. J.



Out-Patient Clinic and Offices

HILL CREST SANITARIUM

Established in 1925

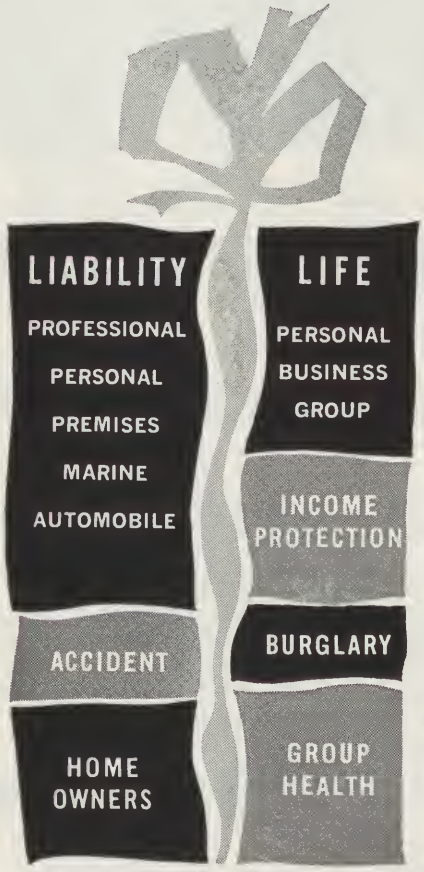
FOR NERVOUS AND MENTAL DISEASES
AND ADDICTION PROBLEMS

James A. Becton, M.D.

James Keen Ward, M.D.

P. O. Box 2896, Woodlawn Station, Birmingham 6, Ala.

Phone 595-1151 and 595-1152



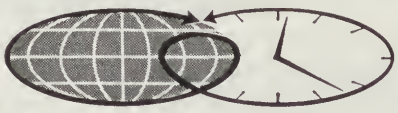
ST. PAUL MULTICOVER PLAN

SINGLE PACKAGE OFFERS THE PROFESSIONAL MAN THE MOST COMPLETE, MOST CONVENIENT COVERAGES EVER!

Choose from over 40 kinds of protection, pack those you need into a single St. Paul Multicover Plan. Deal with just one agent . . . pay just one premium. It's simple and safer, too.

Avoids overlapping coverages or loopholes between individual policies. Write for explanatory booklet.

THE ST. PAUL
INSURANCE COMPANIES



Serving you around the world... around the clock

St. Paul Fire & Marine Insurance Company
St. Paul Mercury Insurance Company
Western Life Insurance Company

Endorsed for Professional Liability by Mississippi State Medical Association

MISSISSIPPI OFFICE
P.O. Box 1412
1129 Deposit Guaranty Bank Bldg.
Jackson 5, Mississippi
FLeetwood 3-4961

HOME OFFICE
385 Washington Street
St. Paul 2, Minnesota



Liquid asset

Now that we have added a new liquid-dosage form to our Panalba* family, you may prefer to begin treatment with Panalba KM* Drops when dealing with infections caused by susceptible organisms in infants and children. From the outset, pending laboratory determinations, your treatment is broadened in antibacterial coverage because of the simultaneous administration of two antibiotics that complement each other. They were carefully chosen for this purpose.

Panalba combines tetracycline (selected for its breadth of coverage) and novobiocin (selected for its unique effectiveness against staph). That is why Panalba offers excellent chances for therapeutic success.

Supplied: Flavored granules for suspension, in 30 cc. bottles with dropper-stopper calibrated in ¼ and ½ teaspoonful graduations. After mixing and shaking with 25 cc. water, each 5 cc. teaspoonful of suspension will contain:

Panmycin* (tetracycline) equivalent to tetracycline hydrochloride .... 125 mg.
Albamycin* (as novobiocin calcium) ..... 62.5 mg.
Potassium metaphosphate ... 100 mg.

Usual pediatric dosage: ½ teaspoonful per 7½ to 10 pounds of body weight per day, administered in two to four equally divided doses.

(Reminder advertisement. Please see package insert for detailed product information.)

*TRADEMARK, REG. U.S. PAT. OFF.
COPYRIGHT 1962, THE UPJOHN COMPANY

THE UPJOHN COMPANY
KALAMAZOO, MICHIGAN

Upjohn



And even these were the fortunate ones, despite the fact that they were to carry a disfigurement for life. Many died. Particularly if meningitis had set in before surgery . . .

You see very few mastoid scars around today – and, under 20 years of age, they are almost nonexistent.

But, not so many years ago (1934) it was a different story:

*"No case of acute mastoiditis should be accepted for insurance unless the ear has healed up after operation and has remained so for at least six months."**

From insurance risk to a practically unknown entity in medicine is quite a record for the relatively few intervening years between then and now. The reasons are not hard to come by. Diagnostic techniques have improved enormously, as has the quality of medical education. And, we submit, so has the quality of the medicines which have become available.

Yet, the value of independent drug research has been seriously challenged – research which has produced the chemotherapeutic compounds which make the *cure* of mastoiditis practically a routine, not even a worrisome, procedure. True, the cost may run as high as $15.00. Yet, ask the man who paid $1,000.00 for his mastoid scar which he would have preferred – if he had had the choice.

*Asherson, N., "Acute Otitis and Mastoiditis in General Practice," H. K. Lewis & Co., Ltd., London, 1934.

This message is brought to you on behalf of the producers of prescription products. A display card of this ad for your waiting room is available. Write:

PHARMACEUTICAL MANUFACTURERS ASSOCIATION • 1411 K STREET, N.W. • WASHINGTON, D.C.



Especially useful in chronic pain, Darvon® Compound-65 effectively relieves inflammation and pain . . . does not cause addiction or tolerance (. . . and Darvon Compound-65 doesn't require a narcotic prescription). Each Pulvule® Darvon Compound-65 provides 65 mg. Darvon®, 162 mg. acetophenetidin, 227 mg. A. S. A.®, and 32.4 mg. caffeine. Usual dosage is 1 Pulvule three or four times daily. This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana.

DARVON® COMPOUND-65 Lilly

Darvon® Compound (dextro propoxyphene and acetylsalicylic acid compound, Lilly); Darvon® (dextro propoxyphene hydrochloride, Lilly) (α-*d*-4-dimethylamino-1,2-diphenyl-3-methyl-2-propionoxybutane hydrochloride); A.S.A.® (acetylsalicylic acid, Lilly) 220212

Control Constipation Without Interference

PRULET®



A MILD REFLEX ACTING LAXATIVE . . .

does not interfere with other conditions under treatment.

The active ingredient of Prulet,® Bis(p-acetoxyphenyl) -oxindole, is analogous to a substance found in prunes. Completely recoverable from the feces, it has no deleterious effect on the vital organs. It is completely free from side effects, such as coloring of the urine, hyperemia and flatulence. During lactation no portion of the active ingredient of Prulet® appears in the milk and it has no effect on the nursing infant.

PRULET®...

provides therapeutic effectiveness with milligram dosage.

EASY TO TAKE: Prulet® tablets are small, odorless, and tasteless.

SUPPLIED: Bottles of 60.

EACH TABLET CONTAINS:
Bis (p-acetoxyphenyl)-oxindole . . . 5 mg

DOSAGE: One or two tablets before retiring until regularity is achieved or as directed by a physician.

PRECAUTIONS: Presence of nausea, vomiting, abdominal pains, or other symptoms of appendicitis.

COMPLETE LITERATURE AND SAMPLES UPON REQUEST

Mission Pharmacal Co.
SAN ANTONIO 6, TEXAS

PR-61

YOU *KNOW* how expensive hospital cost can be.

NOW *LEARN* about the broad new protection for your entire family available at new low rates from "The Doctors Company." (No obligation, of course.)

PHYSICIANS MUTUAL INSURANCE COMPANY
formerly
Physicians Casualty and Health Associations
"The Doctors Company"
Insuring Physicians & Dentists for 60 years.

Physicians Mutual Insurance Company
115 So. 42nd Street
Omaha 31, Nebraska

Please send details on your hospital protection plan.

NAME_____ AGE_____

ADDRESS_____

CITY_____ STATE_____

Burdick



Has the diagnostic equipment in your office kept pace with your own knowledge of new drugs, medicines and technics?

Write us for full details on the Burdick EK-III Dual-Speed Electrocardiograph.

KAY SURGICAL INC.
663 North State St. • Jackson, Miss.

INDEX TO ADVERTISERS

In accepting advertising for publication, the JOURNAL has exercised reasonable precaution to insure that only reputable, factual advertisements are included. Nevertheless, claims made by advertisers in behalf of goods, services, and medicinal preparations, apparatus or physical appliances are understood to be those of the advertiser. Neither sanction nor endorsement of such is warranted, stated, or implied by the association.

	Adv. page
Abbott Laboratories	12, 13, 30, 31
Ames Company	49
Appalachian Hall	34
Blue Cross	19
Burroughs Wellcome	21, 39
Chicago Medical Society	34
First Federal of Jackson	11
Florida Citrus Commission	18
Hill Crest Sanitarium	42
Kay Surgical	46
Lederle	8, 36, 37
Thomas Leeming and Company	17
Eli Lilly	front cover, 26, 45
Mission Pharmacal Company	46
New Orleans Graduate Medical Assembly	38
Parke, Davis and Company	2, 3
Pharmaceutical Manufacturers Association	44
Physicians Mutual Insurance Company	46
William P. Poythress	24
A. H. Robins	16
Roche Laboratories	back cover
Roerig	35
St. Paul Fire and Marine Insurance Company	42
Sardeau	10
W. B. Saunders Company	9
Schering Corporation	25
G. D. Searle	27
Smith Kline & French	6
U. S. Brewers	29
U. S. Vitamin	14, 15
Upjohn Company	22, 23, 43
Wallace Laboratories	7, 32, 41
Winthrop Laboratories	4, 20, 40, 48

Articles for Publication

Manuscripts should be typewritten, double spaced on one side of the paper. Tables, charts, and tabulations should be submitted on separate sheets but their position in the text should be indicated. Authors are encouraged to limit bibliographies to 10 references, written in conformation to style utilized in scientific publications of the American Medical Association. Articles are accepted for publication on the condition that they have not been previously published and are contributed solely to this JOURNAL.

A thesis summary of 75 to 100 words must accompany each manuscript separately from the text. Figures and drawings are acceptable when prepared with black ink on white paper. Photographs for illustrations should be unmounted, untrimmed, glossy prints and all such material must be identified. No charges are made to authors for illustration engravings not exceeding four column inches per printed page.

Reprints may be obtained at cost from the association. The right is reserved to decline any manuscript for publication. Ordinarily, manuscripts submitted will be acknowledged whether published or not.

CLASSIFIED

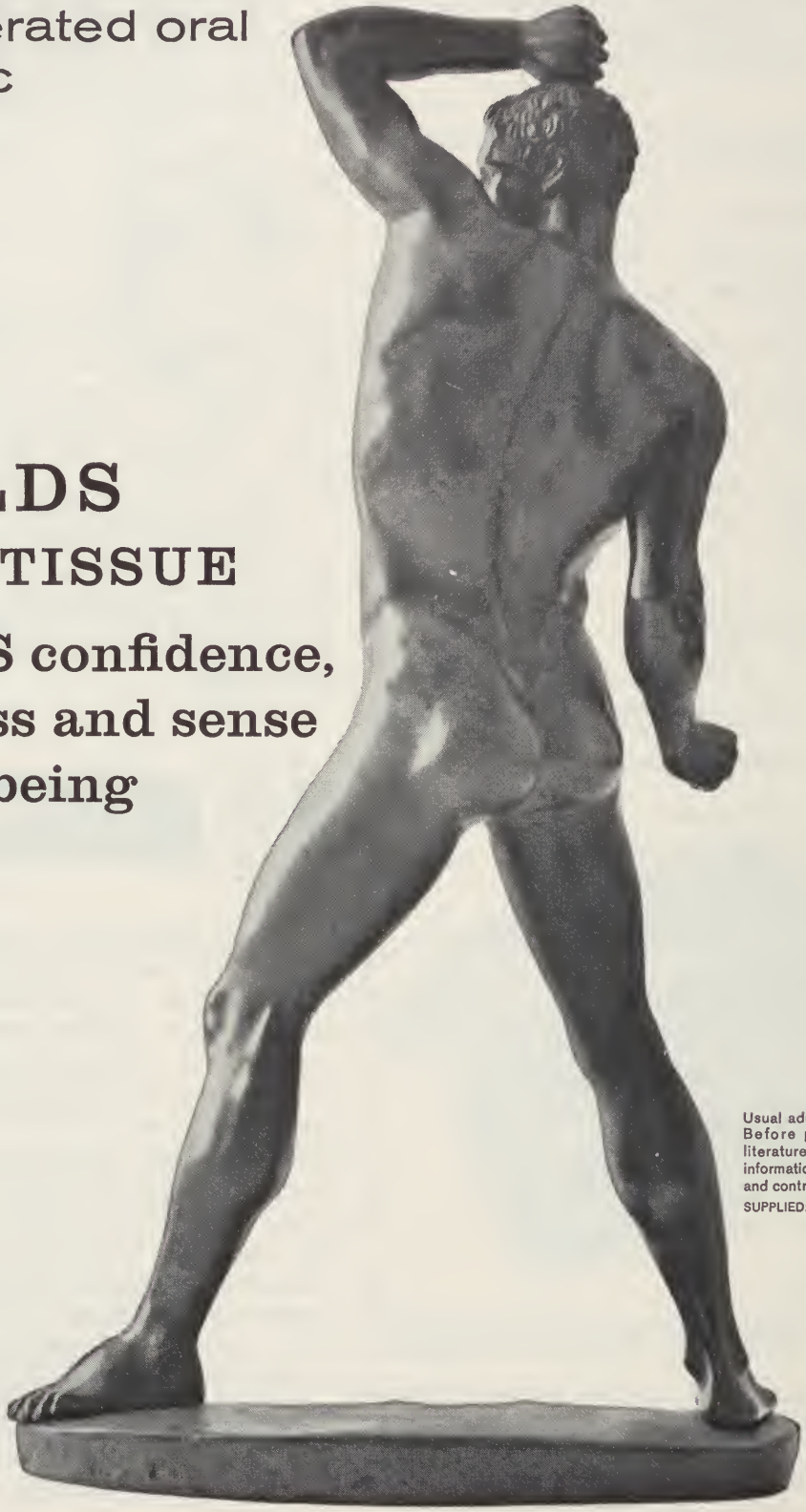
A few positions on the Medical Staff of the Kennedy Veterans Administration Hospital, Memphis, Tenn., are now available to physician applicants. These vacancies exist in the Medical Service, which includes Pulmonary Diseases, and General Medicine in the Admitting-Outpatient Service. Physician's salaries are commensurate with professional qualifications and experience. Board certification permits 15 per cent additional salary. V.A. benefits include family hospitalization plan, with medical and surgical coverage, Federal Life Insurance, periodic pay increases, regular working schedules, and liberal retirement factors. Interested physicians may write the Chief of Staff, Kennedy Veterans Administration Hospital, Memphis 15, Tenn.

THE SIGNIFICANT NEW PHYSIOTONIC

WINSTROL®

BRAND OF STANOZOLOL

well tolerated oral anabolic



BUILDS BODY TISSUE

BUILDS confidence, alertness and sense of well-being

Usual adult dose: 1 tablet t.i.d. Before prescribing, consult literature for additional dosage information, possible side effects and contraindications.

SUPPLIED: 2 mg. tablets. Bottles of 100.

Winthrop
LABORATORIES
New York 18, N.Y.

With WINSTROL, patients look better...feel stronger—because they are stronger

NEW!

DECHOLIN-BB®

COUNTERACTS 3 COMMON CAUSES in functional G.I. disturbances related to hepatobiliary dysfunction

TENSION	SPASM	STASIS
butabarbital sodium (Warning: may be habit-forming) 15 mg. (¼ gr.)	belladonna extract 10 mg. (⅙ gr.)	dehydrocholic acid, AMES 250 mg. (3¾ gr.)

Available: Bottles of 100 tablets.

for **spasm** and **stasis**

DECHOLIN® WITH BELLADONNA

belladonna extract, 10 mg. (⅙ gr.)
dehydrocholic acid, AMES, 250 mg. (3¾ gr.)

for **stasis** alone

DECHOLIN®

dehydrocholic acid, AMES, 250 mg. (3¾ gr.)

Available: Bottles of 100 and 500 tablets.

Average Adult Dose—DECHOLIN-BB, DECHOLIN with Belladonna, and DECHOLIN—1 or, if necessary, 2 tablets three times daily.
Contraindications: Biliary tract obstruction, acute hepatitis, and (DECHOLIN with Belladonna and DECHOLIN-BB) glaucoma or prostatic hypertrophy. 19562

AMES
COMPANY, INC
Elkhart • Indiana
Toronto • Canada

LIBRARIAN
NAT LIBRARY OF ME
WASHINGTON 25 D C

specific for anxiety & tension

Librium

The singular specificity of Librium in controlling anxiety and tension has proven to be an advantage in a wide range of disorders characterized by anxiety of varying degrees. Notably effective in patients whose symptoms are primarily emotional, Librium is equally valuable when organic disease is aggravated or prolonged by accompanying anxiety. Coupled with its effectiveness is an outstanding record of safety. Librium has few, if any, of the unwanted side effects associated with tranquilizers and daytime sedatives—no extrapyramidal effects, no autonomic blocking, and no dulling of mental alertness. Consult literature and dosage information, available on request, before prescribing.

the successor to the tranquilizers

LIBRIUM® Hydrochloride—7-chloro-2-methylamino-5-phenyl-3H-1,4-benzodiazepine 4-oxide hydrochloride

ROCHE

ROCHE